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THE PHYSICIAN: HIS DUTIES AND RELATIONS TO THE PROFESSION AND TO THE PUBLIC.*

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Goethe's saying that "Medicine is the most God-like of all the pursuits of man," applies to the medical profession of all ages. In its earliest history closely allied with that of religion, it is quite credible that medicine, in its primitive form, is the most ancient of the professions. Before man began to think of his soul, the needs of the physical body must have made their appeal to him, and primitive medical methods must have evolved out of his consciousness of the wounds and bruises incurred in his struggle for existence. With the passing of the ages, there developed the *Physician*, as the present day knows him, a man set apart for the healing and cure of the ills of the flesh, devoting his life to the battle against disease, either in the treatment of the sick individual or in the combatting of epidemics. He goes farther than this—not satisfied merely with the fighting of existent disease in the patient or the community, he looks to the preven-

tion of future ills by outlining broad plans for the conservation of human life and energy, by educating and inspiring the public to the enactment of pure food laws, the protection of water supplies, extermination of parasites and disease-bearing insects, the conquest of the Tropics, the regulation of child-labor, the protection of sex-relations, the fight against tuberculosis and the venereal diseases, and the enforcement of general hygienic measures.

The physician has, therefore, evolved from the mere *treater* or *healer* of disease to a more complex position, including the *preventer of disease*. Truly, Goethe's saying becomes even more applicable at the present day; medicine is the noblest of all callings. For such a lofty and noble calling an especial education and training are necessary, but these must not be too narrow and specialized. The modern physician must know life in all of its phases—he must have the knowledge of the mainsprings of human action. He cannot content himself with a knowledge of anatomy, a

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little pathology, more symptomatology and still more *materia medica* and surgery. To fulfill his function—to be of best use to the community, he must possess a knowledge of all things that may benefit the community aside from the mere matter of treating the sick individuals. He must lead men to right living because it is the way to long life and health. He must have the knowledge of human nature as revealed in history and the world's great literature, he must know psychology, sociology, and political economy, and he must be a past master in the province of hygiene and sanitation. He must be able to understand the spiritual requirements of his clients, and in this way to offset their inclination to turn to false gods, such as Christian Science, the Emmanuel Movement, and other forms of so-called "mind-cure."

Such is the modern demand made upon the physician and the one who does not respond to it—who still thinks his only duty is to see a patient, make a diagnosis and then write a prescription—is sure to be left behind. Great is the calling—great are the demands made upon those who enter it! Unfortunately, too often we see in the practitioner a failure to comprehend the lofty nature of his profession. Either because of his own spiritual or mental inability, or his failure to arise above what seems to him to be the legitimate "business" side of the practice of medicine, he loses all sense of his higher responsibilities and degrades his profession to the level of a trade. As a result he adopts all the evil methods of modern trade-competition. His colleagues he comes to regard as competitors or rivals in a business way. He stands apart from them, often with a bitter feeling of jealousy or injury, and goes on alone in his medical business, without the inspiration and help that should come from spiritual and intellectual association with his professional

brothers.

For medical men to be of the greatest value, not only to the profession, but to the community at large, there must be organization; and co-operation as manifested in organization cannot be too highly emphasized. It is especially my purpose at this time to speak of this phase of the medical profession. In practically all walks of life, professional as well as industrial, organization has become the watchword by which everything of any account has been accomplished. To secure the greatest effectiveness, each individual must relinquish his own personal interests and unite in the one absorbing and dominating idea for the advancement of which the organization has been formed. All unworthy feelings of rivalry and competition should be abandoned. From the union of the sentiment and influence of the individual units there should result one great irresistible force—one great unit of sentiment and purpose.

The basis of medical organization cannot be better expressed than in the following ideals of the Litchfield County, Connecticut, Medical Society, adopted in 1784, but as vital and as pertinent today as they were over a century ago:

1. To lay a foundation for that unanimity and friendship which is essential to the dignity and usefulness of the profession.
2. That in all cases where counsel is required they will assist each other without reserve.
3. They will communicate their observations on the air, seasons and climate, with such discoveries as they may make in physics, surgery, botany or chemistry, and deliver faithful histories of the various diseases incident to the inhabitants of the country with the mode of treatment in singular cases.
4. To appoint a committee for the purpose of correspondence with neighboring medical societies and in Europe.

The establishment of a weather bureau and the enactment of laws concern-

ing the observation of the weather and all meteorological phenomena, as well as the general distribution of medical knowledge through the medium of medical journals, have made some of these aims obsolete, but it is the general spirit and lofty ideal animating them that make their quotation worth while.

The first and chief essential in the organization of a medical society is the laying of a corner-stone of unity and friendship. These things are necessary if the profession is to be a useful and dignified one. It is unfortunately true that there are many black sheep within the medical fold, and that strife and contention seem to be the very life of the practitioner. Too often, he lets his angry passions rise against his professional brother, forgetting that the members of this noble calling should in all ways exemplify the brotherhood of man. A well-conducted medical society should represent a clearing house. Viewed from its vantage ground we may often find that a colleague upon whom we have looked with suspicion and distrust is after all a *man* with good qualities sufficient to make him a fit associate in the good fellowship and friendly intercourse of daily life.

Some physicians do not join a medical society, believing that they have nothing to gain by attending a meeting and hearing a colleague read a paper upon some subject which they think they can obtain from the books of their own library, perhaps elucidated in a more convincing manner. To a certain extent this is true, but rarely does the side-light thrown upon a question by another human mind fail to be of interest. Osler's remark applies here: "The man who knows all and gets nothing from the society reminds one of that little dried-up miniature of humanity, the prematurely senile infant, whose tabetic marasmus has added old age to infancy." It is in the discussion and the interchange of views that

the greatest good comes. While the fostering of good fellowship among its members is one of the prime objects of a medical society, the free interchange of thought—the stimulation of mental activity by the friction of mind against mind engaged in the same line of work, is of greater value still. The friendly and unrestricted discussion of a subject cannot but result in great mutual benefit. To no one is this of greater importance than to the young practitioner, who in the beginning of his professional career may, if his hours are not fully occupied, fall into the vice of intellectual laziness. Without specific objects of work he may fritter away his time in the reading of useless literature or in association with companions, who not only do not give him stimulating ideas, but often assist him in wasting his time. Once started on this road, in a short time he may know less and be a less valuable member of the community than when he received his sheepskin and entered upon his professional life.

By becoming a member of a medical society and entering freely into the discussions the mind of the young practitioner will soon become awakened to the fact that there is still much for him to learn. I have been told by younger colleagues that until they had attended the society and had become interested in a subject that lead them to search and study the literature they had not thought that so much had been written on various medical subjects. The experiences of older medical literature, when once opened up to the seeker after knowledge, are often wonderful revelations to the young practitioner. Again I may quote Osler: "The society should be a school in which the scholars teach each other." The meetings of the society should be arranged to prove the truth of this assertion. A great responsibility lies upon the shoulders of every program committee. Vital subjects should be chosen for

papers and discussion, the program must be made a live one and an attractive one for each and every meeting.

There are also men who do not attend meetings or who refuse to join a society for the ignoble excuse that they are "too busy" or "may miss a case." The physician who looks upon his profession as a mere financial work degrades his profession and cannot have any of the high and noble qualities and aspirations that should distinguish the members of a profession who give their lives to the saving of others. Such a man has no place in the practice of medicine. He should enter a business career where the responsibilities of human life and happiness are not placed upon his shoulders as his sacred duty, to be borne to the end. The laborer is worthy of his hire, and I cast blame on no man for reaping the just reward of his labor, but we may ask: "If pecuniary reward had been the only incentive for medical work, what progress would have been made?" Had money been the only incentive in the case of Jenner, Virchow, Pasteur, Koch, Ehrlich and many other epoch-making men in the wonderful development of preventive and curative medicine, how little public good would have been accomplished and how few would have reaped the benefit of their work! Should we adhere to this mercenary view, instead of raising our banner of ideals, of loyalty to principles and that genuine *esprit de corps* which is so essential to the dignity and usefulness of our profession, would there be any reason why the public should not point at us the finger of scorn and contempt?

The medical society should inculcate the principle that there is honor only in marching under the flag which represents all that is honest knowledge furnished to us by pure science. It is, however, a notorious fact that not more than one-third of the physicians in this country are members of a medical society.

There are many guerillas and it should be the aim of the society to bring them into the lines of order and regularity. Every practitioner should take pride in assisting to create and cement the great organization of medical men as exemplified in the American Medical Association, and to do this he should take pride not only in his local society, but in becoming a member of the State and National Associations. Only in such complete organization can the medical profession achieve its greatest effectiveness. Such an aggregate power of combined medical influence of a community, state and national associations can be exerted for good in divers ways, especially in educating and moulding public opinion as to the value of medical thought in our public councils, national and state legislatures, in the enactment and enforcement of public health laws. To bring this about requires painstaking organization and united effort to secure the membership and co-operation of all medical men and thereby to impress not only the public at large, but also emphatically to show and demonstrate to our legislatures that we are a united profession and that our work is essentially for the conservation of human life. Perhaps some may think that this great work to be accomplished, especially in hygiene and preventive medicine may help to reduce disease and thereby the earnings of the physicians. As to the first result, we hope it will be brought about speedily—as to the second one, the physician who is abreast of the intellectual movement of his time, who realizes the transformation coming over his profession, from an art or science of *healing* to a *science of prevention* will have no fears that he will be left financially wrecked. There will be work enough for him to do in *prevention*. Even were it not so, the best of our profession would show the true spirit of humanitarian unselfishness to bring about a condition which will not only

improve the general health, but prolong the average human life.

There are certain great public duties that are ours by right, and it is surprising to note how few of us take an active interest in anything except the bare practice of our profession. Few of the physicians of my own county take any part in public affairs, and what is true of it, is, I believe, also true of every other county in the state. The physician must not forget that he is a citizen of the commonwealth and as such has duties to perform for the elevation and good of the community in which he resides. At this stage of the world's progress, no man can live for himself alone, he is bound in a thousand ways to the community and must do his share in furthering the common good. A failure to comprehend this means a failure in the highest things of life.

In great movements affecting the nation as a whole, the physician may find a proper field of action. Already through the united stand and efforts of the profession, as exemplified in the acts of the American Medical Association, much useful and judicious legislation has been put in force by both federal and state legislative bodies. The physician has come to be also a maker of laws. In all matters concerning the physical health of the nation his expert knowledge and specialized training become necessary to the proper and intelligent framing of health laws and their enforcement. This has been well expressed by the attorney general of the United States, as follows: "Through the action of physicians has come about much advantageous legislation. I might refer, as an illustration, to the regulations regarding proper drainage, quarantine of persons infected with contagious diseases, besides the passing of the act prohibiting the sale of adulterated and poisonous drugs and foods. But for the work of the physicians many of these acts would never have been real-

ized. Had it not been for the results of the scientific research of physicians the digging of the Panama Canal would probably have been impossible, because of the fever and other diseases that made living on the Isthmus impossible for those engaged in the work."

This high tribute paid by an intelligent layman shows the decided influence of education along proper lines. When the time comes, as it most surely will come, when the general public becomes so educated to a comprehension of this truth, the physician will assume a large share of the responsibility in the enactment and proper execution of laws designed for the protection of the public. In the past many general practitioners as well as many able and scholarly leaders in the profession have failed to enter the trenches in battles for civic good and general welfare. Such delinquents in their higher duties must come to be regarded with suspicion by a public that is rapidly becoming educated to a knowledge of those things.

In municipal affairs the physician must also take his share as a citizen upon whom certain peculiar responsibilities rest. In matters of local health conditions he should take an active, even an aggressive part. What a paltry excuse is often offered for failure to perform these duties—that of interference with professional work and the possible loss of a patient! Is there any one of us who could not, by putting on just a little more pressure, do these things, too, as well as the daily work coming into our hands! The physician who cannot is of poor stuff, indeed! The public must be educated in matters of hygiene and in the prevention of the infectious diseases; it is *demanding* such education. The scientific members of our profession have told it that the infectious diseases are not inevitable, that they are unnecessary and preventable. Will such an appeal to the self-interest and common-sense of

the laity be met with indifference? Who then will be the leader in the work of more fully instructing the public—the physician, the legitimate leader, or will it pass into the hands of the laymen themselves? Such striking lessons in the restriction of epidemics have been already learned by the public, as in the case of the excellent work done by the Public Health and Marine Hospital Service in the eradication and prevention of yellow fever and bubonic plague, that even in communities where the necessary restriction of communication was at first bitterly resented on the ground of infringement of the rights of the individual and state, such opposition has been replaced by an intelligent co-operation and appreciation of the results obtained and the measures necessary thereto.

In the education of the public along the lines of general hygiene and sanitation the public schools should become an object of the physician's solicitude. Proper school inspectors should be provided, suitable text-books on hygiene recommended, talks and lectures given to school children, etc., and in the intelligent carrying out of these measures it becomes essential that there should be on every school board a physician whose advice should be sought and taken in all those matters in which he alone is best qualified by the peculiar virtue of his professional training.

The public must also be taught the value of hospitals in the treatment of the sick, and their value in the restriction of disease. As an example showing the necessity of such enlightenment, many of you no doubt know that in a neighboring city the offer of a large sum of money by a public-spirited individual for the erection and endowment of a hospital for contagious diseases of children was opposed by the residents who invoked the law to prevent its erection on the ground of danger and depreciation of property values. A similar false argu-

ment prevented the establishment in 1895 of a tuberculosis hospital in connection with the university at Ann Arbor.

The conquest of disease depends upon the education of the public, and the most important question of the day is that concerning the best method of inculcating such education. Aside from the instruction of children in the public schools, the press is beyond doubt an invaluable avenue of education through which the lay public may be reached. The success of nostrum venders is an evidence of the keen interest shown by the great mass of the people in all things medical. The matter of educating the people in medical matters by the aid of the daily press and popular magazines should not be taken up indiscriminately by members of the medical profession, but should be left to such men as are empowered by special training and experience to speak with authority on a given subject, and who will give nothing but the absolute truth as known to science. Likewise, great discrimination in the selection of subjects should be exercised. The press matter should be in plain and simple language and should be restricted to a discussion of the significance, etiology, prevention and general hygiene for a given disease. Treatment should not be discussed. Mooted medical subjects should not be exploited at all, as the result would be the giving of unsettled views to those who are not capable of using proper judgment or discrimination. For example, consider the immense harm done by the injudicious and wholly unwarranted articles on the use of trypsin in cancer published in one of the leading popular magazines. The question has also been widely discussed as to whether it would not be better to have such communications to the public through the press, prepared by skilled lay writers having the art of presenting a subject in an attractive manner. To such writers the sources of information

should be freely opened, but such productions, it is needless to say, should be carefully criticised and edited by medical men. We have seen during the last several years too much of the evil results of the layman's discussion of certain medical subjects.

Crile says in a recent address: "From my investigation I am satisfied that the press would welcome co-operation on professional matters. I believe, indeed, I have been told that the press would be glad of reasonable medical news supervision by a responsible physician or committee of such, a committee which would pass upon both contents and form of press items affecting our profession and advise the local dailies as to the probable effects of such 'news' upon the public and profession. Much harm could be prevented and much good could be accomplished. Or would it be still better to have an accredited medical editor attached to each paper?" I believe the proposition should have the careful consideration of the profession in the endeavor to instruct the public through the press, admittedly one of the most potent means available.

When an infectious disease occurs in a family, knowledge concerning such disease, its hygiene and prevention, should be supplied to the members in the form of pamphlets and circulars of information prepared by the local or State Board of Health. The family physician should be given the first opportunity of distributing such literature, but in the event of

his failure to do so within a specified time the board of health should step in and furnish such literature and insist upon the advice given being carried out so as to secure the best results. The physician must himself be educated to an understanding that it is not simply a question of his client and himself, but that it is a matter of common interest and for the common good.

In closing, I would ask you all to remember that we are warriors in a great army, engaged in a fight against disease and for the conservation of human life. Alexander, Caesar, Napoleon and other great military leaders sacrificed millions of lives in their struggles for lust and power—and they have been called great! But the luster once attending such names is fading before the greater glory of Jenner, Pasteur, Lister, Koch and a host of others, who also are conquerors, not sacrificing human lives, but fighting and overcoming disease to save untold millions. The bravery of the Light Brigade has been immortalized in history and in song; and yet were the members of the Four Hundred any braver than Carroll, Reed and Lazear, who offered their lives that the secret of yellow fever might be revealed and that dread scourge overcome? Should not their names be on the roll of honor and their statues be given niches in the Hall of Fame! All of these sublime efforts were not made for public applause or for material gain, but for the good of humanity. "For greater love hath no man than this, that a man lay down his life for his friends."

As a means of checking tuberculosis in the principal cities of Brazil, the sanitary authorities of that country have instituted a campaign involving the expenditure of \$1,250,000. The project includes the compulsory reporting of every case of tuberculosis, the establishment of hospitals, agricultural colonies, and sanatoriums.

According to a report of the United States census, it is stated that the mortality of the Indians from tuberculosis is undoubtedly far higher than that of either the whites or the negroes, although it is believed by careful investigators that the disease was entirely absent before the advent of the whites in America.

THE NATURE AND TREATMENT OF GUNSHOT WOUNDS.*

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The invitation of the Monroe County Medical Society, to which I am now responding, provided that my subject should be of interest to general practitioners. Gunshot wounds is admittedly an uncommon topic for a civilian medical society, but I hope both to show your concern and to arouse your interest in it.

H. S., age 10, while visiting relatives in a neighboring county, was shot with a pistol, July 2, 1909, a blank cartridge making a jagged wound on the inner side of the first phalanx of the left index finger. A doctor was said to have dressed the wound three times. Afterwards the patient returned to Detroit apparently all right. He played with his companions and went to the public bath. On the night of July 7th, five days after the receipt of the injury, he was restless and slept little. The next day he was seen by two physicians who advised his removal to a hospital. He was admitted to St. Mary's Hospital, July 8, 1909, at 3 p. m. His jaws were stiff, his back rigid, and he was generally uneasy. Fifteen hundred units of antitetanic serum were administered subcutaneously at once, and twenty grains of chloral were given by mouth. An hour later, when I saw him first, he was sleeping, but awoke at a touch. Chloroform was administered and the wound opened, cleaned, swabbed thoroughly with 95% carbolic acid and absolute alcohol, and dressed with gauze saturated with hydrogen peroxide. The dose of serum was repeated twice within the next twenty hours and chloral, morphine, hyoscyamus and chloroform were given abundantly, but the spasms of the muscles, especially of the neck and back, continued until 4:30 p. m., July 9th, when he died, about forty hours after the onset of the symptoms and on the eighth day of the gunshot wound.

Case 2. L. F., age 32, while standing in the

doorway of a farm house, was shot in the left inguinal region, July 5, 1909, at 6:30 a. m., at about twelve feet distance, by a fellow laborer who "didn't know it was loaded." A physician dressed his wounds, picking out shot and debris, after which he was carted to the hospital. Examination showed a large area of skin about the wound to be honeycombed with bird shot; the abdominal wall was perforated by a circular wound half an inch in diameter, and the load consisting of a gun wad and numerous shot, together with shreds of clothing, were found lying upon the omentum and removed. A perforation in the intestine was closed. The case was septic and peritonitis developed. In spite of much drainage and the institution of proctoclysis in the Fowler position, the patient succumbed on the sixth day.

Case 3. W. M., a boy of 13, shot himself in the center of his right palm, July 5, 1909, while playing with a pistol and blank cartridges. He stated that he went to one doctor first who refused to have anything to do with him as he had no time. He went then to a druggist who gave him peroxide with directions as to its use. As he was feeling ill on July 9th, his father brought him that night to St. Mary's Hospital. Under anesthesia the wound was opened, cleared of powder, irrigated with peroxide and bathed with antitetanic serum. Fifteen hundred units of antitetanic serum were also administered hypodermically and repeated twenty hours later. The wound has been treated with carbolic acid and alcohol daily and at this date there are no untoward symptoms.

The three cases just recited and the more than five thousand others that occurred in this country last week in the course of our annual Chinese celebration, constitute part proof of your concern as general practitioners in gunshot wounds.

According to the *Journal of the Ameri-*

*Read before the Monroe County Medical Society, July, 1909.

can Medical Association there were 415 cases of tetanus in the United States in 1903, 105 in 1904, 104 in 1905, 89 in 1906, 73 in 1907, and 76 in 1908. Fifty-five died of tetanus last year. One hundred and eight other deaths were due to firearms and other fireworks. Firearms caused 481 accidents. One hundred and ninety-four were struck by stray bullets from the reckless shooting of firearms by others. Altogether 5,623 Fourth of July accidents were reported last year, being 1,210 more than the year previous and 157 more than in 1906.

The gunshot wounds just referred to may be said to have been in season. They occur out of season also and are by no means rare. Exact statistics are wanting, but the number of such cases is increasing each year, especially among European immigrants and the first generation of their descendants.

Military surgery has been the forerunner and to an extent the teacher of civilian surgery in the matter of gunshot wounds, but there are distinctions and differences between them, both in pathology and treatment, which should not be overlooked.

In the first place it is well known that military arms have undergone marked changes in the last forty years. The attempt to increase the range and effectiveness of firearms has resulted in a change in the character of gunshot wounds. The jacketed cartridge of small diameter and long dimension has been found to be less destructive and more humane than the old leaden bullet. The rifling of the modern cartridge makes it aseptic and, other things being equal, the damage produced in the body varies according to the distance of the projectile from the weapon.

To quote briefly from the late Doctor Nicholas Senn: "The effects of the small-calibre bullet correspond with three well-marked zones. The first zone, up to 400 metres, is the explosive range,

within which fearful wounds are inflicted. * * * Wounds of soft parts correspond about with the size of the bullet; * * * there is not much difference in size between the wound of entrance and exit. * * * The compact portions of the large, long bones always show extensive splintering, but in flat bones drill perforations, with or without fissuring, are the rule. * * * The second zone covers the distance from 400 to 800 metres. Within this range, the explosive effects are only seen in gunshot injuries of the skull; all other wounds are noted for the absence of extensive destruction of tissue, including the bones. The third zone extends from 800 to 1200 metres. Injuries inflicted at this distance are comparatively slight. The bullet cuts a clean track. The wounds of entrance and exit diminish in size with the increase of distance, the former being a small circular defect, five millimeters in diameter, and the latter often a small slit, six to seven millimeters in length, so small that it may be difficult to find it. The bone injuries are drill holes or furrows without splintering. Beyond this zone, 1,200 to 2,000 meters * * * destruction of bone becomes more extensive. Even at this distance bullets seldom lodge in the body."

From a variety of experiments, Kocher concluded that the destructive effect of a bullet depends principally upon the hydrostatic pressure of the incompressible fluids contained in all the tissues of the body. Hydrostatic pressure is intensified by the degree of velocity of the bullet, its calibre, and the amount of fluid contained in the object fired upon. Bullets with low velocity cause no hydrostatic pressure. In wounds made by bullets of equal velocity, the size of the bullet determines the extent of the destruction, that is, the larger the bullet the more severe the wound.

The foregoing observations by recognized authorities place military and naval

arms in a different class from the firearms met with in civil life. As battle-field wounds differ from each other, so it might be expected that they would differ also from gunshot wounds in civil life. Having depicted the former sufficiently for the purpose, let us turn our attention now to the latter.

Wounds received in a blasting accident, like those from giant firecrackers and cannon, are characterized by their lacerated condition. Being usually open, they seldom terminate in tetanus unless infected through dust and closed. The pistol and revolver are responsible for most gunshot wounds in civil practice. These weapons being alike, with the exception that the latter has a revolving cylinder or revolving barrels, use the same projectile, have the same range and may therefore be considered together.

The ammunition most commonly met with in civil practice consists of two forms of cartridge, the blank cartridge loaded with a paper bullet and the ball cartridge. The revolver cartridge is similar to that for the rifle, only shorter, varying in diameter from 0.22" to 0.45", in weight from twenty-five grains to half an ounce, and conical or truncate in form. Ball cartridges are usually made of compressed lead, but sometimes hardened by the addition of tin or antimony. Unlike the rifle cartridge used in military operations by most nations at the present time, revolver cartridges are not mantled.

In marked contrast to the modern military rifle, which has a muzzle velocity of nearly 2,500 feet per second and a killing range of two miles, pistols and revolvers impart a comparatively low velocity to a projectile on a curved trajectory and therefore have a much more limited range. An investigation of most civil gunshot wounds bears witness that the missile was discharged either by the victim himself or within twenty yards of him. Because of the use of small hand

weapons and of the consequent close range at which gunshot wounds are inflicted in civil life such injuries are usually direct. If a discharged bullet strikes an intervening object, its energy will be diminished, its shape altered, and the harm done correspondingly affected.

As a general rule it may be said that the majority of gunshot wounds are not septic. That statement will apply, however, more strictly to such injuries in military practice than in civil practice. In the first place ball cartridges in their original packages are free from septic germs, because of the care taken in their manufacture. As has been also already pointed out the rifling of the jacketed cartridge puts a clean surface upon it, and, unless it be a ricochetted bullet, it is not liable to carry particles of clothing or other infectious material with it into the body. In civil practice, however, conditions are different.

The wads of blank cartridges are made of rags and other soiled matter and are believed to contain in many instances virulent tetanus bacilli and the ordinary germs of suppuration. Furthermore, they are liable to become infected through careless handling and the germs of anthrax are not, and the germs of suppuration may not be destroyed by the act of firing. The muzzles of revolvers and pistols are so short that the bullet probably makes no more than half a revolution before it leaves them. Again the kind of clothing worn in civil life, in comparison with the khaki jacket, predisposes, especially with the truncated cartridges, such as are used by the Detroit police force, to particles being torn out and carried into the wound.

Because of their low velocity, revolver bullets produce slight explosive effects and little splintering of bone. They do contuse and lacerate all soft tissues in proportion to their size, shape and velocity, but, not being jacketed, easily become deformed and not infrequently flat-

ten out on the long compact bones. If they strike spongy bones, as the vertebrae or the long ends of long bones, they may penetrate and lodge therein. They are more liable to perforate thin flat bones, but even in them may not cause much fissuring.

If the weapon be fired at close range on an exposed part of the body, a powder burn or "brand," as it has been called, is always found on the hammer side of the weapon which inflicted the wound. That effect is nullified, however, by the use of smokeless powder.

The effects of revolver bullets upon the different structures vary. A spent bullet may simply contuse the skin. If it strike the body vertically it may make a circular wound of entrance corresponding to the size of the bullet. If bone be subcutaneous the wound may be slightly larger than if soft tissues intervene. If the missile strike at an angle, or be deformed, it will make a "keyhole" or other irregularly shaped wound. If it be irregularly shaped the tissues will be correspondingly lacerated. Vessels may be injured by the projectile, but not as frequently as in military practice. Nerves are more often divided by the large lead bullet than by the small jacketed cartridge. In all cases there is extravasation of blood at the bottom of the wound.

Of all gunshot wounds of the body those of the brain, especially at the base, the upper portions of the spinal cord, the heart and the great blood vessels are the most important, as they are liable to cause immediate death. Wounds of the hollow viscera, lungs, kidneys and large joints are grave on account of the danger of sepsis. Penetration of liver and spleen may result in dangerous hemorrhage, whereas those of the skin, fasciae, muscles, tendons and other soft tissues are not to be feared, unless they become infected with tetanus.

Horsley has called attention to the fact that respiration may be totally in-

hibited as the immediate effect of gunshot wounds involving the brain, even though blood pressure be undisturbed. In other cases both respiration and circulation may be interfered with, causing the victim to drop to the ground without dying. That phenomenon I observed as a boy when a companion was struck forcibly on the chest near the neck with a snowball, causing him to fall momentarily to the ground.

It is in their treatment that the disparity between gunshot wounds in military and civil life is or should be most marked. On account of the aseptic character of the missile and consequently of the battlefield wound and the inappropriate facilities at hand, conservatism or the expectant plan of treatment has obtained. Even in cases of abdominal injuries in which operative interference seemed to have been warranted the results have been discouraging. In civil practice, however, not only are the safe removal of the bullet and the toilet of the wound reasonable, but also the results have been argumentative toward the adoption of the principles of surgery as in other injuries.

Temporarily all gunshot wounds should be protected at the earliest possible moment by first aid dressings. Alarming hemorrhage, shock, and dyspnea should be given immediate attention, but the removal of the bullet, probing or any further treatment of the wound should be left until adequate preparations shall have been made. Gunshot wounds should never be closed with either adhesive plaster or sutures. They should invariably be left open and drained.

Wounds made by blank cartridges should always be cleared of all foreign matter, treated with antiseptics, kept open and drained and antitetanic serum injected as a precautionary measure. Fifteen hundred units constitute a safe immunizing dose.

Tetanus is essentially a disease of the

spinal cord and medulla. The toxin does not reach those structures by way of the blood and lymphatics, but by nerves. Pochhammer's studies go to show that the tetanus toxin is deposited in and bound by the myelin in the medullary sheath, and may be retained in the nerve tracts for years. Only when the toxin has finally worked its way to the mixed peripheral nerves and nerve trunks do symptoms develop. For that reason the shorter, small mixed nerve branches are more readily affected by the toxin than the larger trunks, a fact which explains the localization of the symptoms in muscles of that kind, such as the muscles in the throat, neck and back, innervated by short, small mixed nerves. It has been found that antitetanic serum is taken up slowly after injection, that only after twenty-four to forty hours does the greater portion enter the circulation, and that most of it is eliminated unchanged in the secretions and excretions. For these reasons it must be administered early to be of any use. Pochhammer's researches indicate that antitoxins or antibodies are not absolutely specific, but merely induce general processes of regeneration, and that serotherapy in established tetanus is generally useless or actually harmful, taxing the organism, even if it does not have a direct toxic action.

Another method of treatment advanced by Bacelli consists in the subcutaneous injection of a one per cent solution of carbolic acid until eighty grains are given to an adult in twenty-four hours. Owing to its rapid elimination, the injections should be at short intervals.

If tetanus develop, chloral, morphine, the bromides and other nerve sedatives should be given in sufficient doses to control the tetanic spasms.

In the case of bullet wounds it has been the practice with many surgeons in the past to probe the wound and then, if unsuccessful, await developments. In

my opinion such treatment is not only not modern surgery, but it is even harmful. With the aid of the radiograph or the fluoroscope the location of bullets can usually be determined with sufficient accuracy to warrant a moderately dexterous surgeon to attempt their removal. In my own experience the location of the bullet in its bed has been the most difficult part of the technique. Once felt its removal is a simple matter. No elaborate instruments have been required. The bullet probe even is superfluous. The best probe in gunshot wounds is the index finger of the surgeon. After widening the wound of entrance under general anesthesia the finger can, in recent wounds, be passed along the track of the bullet more easily than one might suppose. With the finger tip in proximity to the offending missile it can easily be uncovered and a pair of long slender forceps can be passed alongside, made to grasp and dislodge it.

Gunshot wounds of the skull demand closer and more prompt attention than those of the extremities. The wound of entrance should be thoroughly exposed, enlarged if necessary, loose spiculae of bone removed, depressed fragments elevated and drainage provided to carry away the wound secretions. If the skull be perforated, thorough drainage should be secured. If the bullet be lodged within the skull its localization and the resulting symptoms will govern the advisability of surgical intervention. Statistics of wounds of the spine collected and reported by Prewitt and Schmidt give a well-marked percentage in favor of the operated cases.

Under present conditions gunshot injuries of the chest are best treated conservatively. Absolute protection of such wounds without probing, immobilization of the chest and active watchfulness for infection and hemorrhage in pleura or lung will best meet all needs.

It is perhaps in gunshot wounds of

the abdomen that civilian surgery has triumphed most over military surgery. It has been found that about ninety per cent of gunshot wounds of the abdomen perforate some organ or organs, half of which are of the intestinal tract. Wounds of the lower abdomen are more to be feared than those of the upper abdomen. In the penetrating wounds of the abdomen the danger of internal hemorrhage and of perforation of the stomach or intestine and consequent leakage demands immediate operation. Of 700 cases collected by Siegel the mortality varied from fifteen per cent in those operated upon within the first four hours, to eighty-seven per cent when operation

was delayed beyond twelve hours after injury. Having disinfected the wound, an incision through the left rectus close to the median line will give the best exposure to the stomach and adjacent organs. Intraabdominal hemorrhage should first be controlled. Wounds of the liver, spleen, and pancreas will not infrequently be found. Multiple injuries of the viscera are the rule. Perforations of the stomach, colon, duodenum and adjacent coils of the intestine should be carefully sought and repaired according to the principles of modern surgery. Drainage should be provided through the anterior wound and occasionally through the left loin or above the twelfth rib.

The High Enema.—Horace W. Soper considers the question of how far into the colon a soft rubber tube can be introduced. He believes that it is only in those rare cases of abnormal development of the sigmoid that it is possible to introduce a soft rubber tube higher than six or seven inches in the rectum without the tube bending or coiling on itself. With the aid of the sigmoidoscope only the middle of the sigmoid can be reached. The practice of allowing liquids to flow through the tube simultaneously with its introduction serves to smooth the kinks and adds to the illusion that the tube is going higher. The short tube, six inches in length, is therefore best for all sorts of enemata, e. g. (a) when water, etc., is introduced for the purpose of causing fecal evacuations, using the fountain syringe or funnel and long tube in the usual way. It is possible,

as he has frequently demonstrated, thoroughly to cleanse the entire colon by using a large ($\frac{1}{2}$ inch) short tube. This is connected by rubber tubing to a large funnel elevated from 3 to 4 feet; the solution is poured in until the patient experiences a feeling of distention or desire to evacuate; then the funnel is lowered until the outflow has ceased, and this maneuver is repeated in exactly the same manner as in gastric lavage. The short tube is also best (b) when retention of liquid is desired, as in administering saline solution, oil, nutrient material, etc. The attempt to pass the tube higher into the bowels is not only unnecessary but, because of the coiling that inevitably occurs, such a manipulation tends to produce irritability of the bowel and this, of course, will very probably cause expulsion of the fluid.—*J. A. M. A.*, August 7, 1909.

THE FRONTAL SINUS.*

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Inside the cranial vault a sinus is a sulcus or groove for the reception of a vein; outside, it is a cavity normally filled with air.

The Frontal Sinuses are two in number and are found on either side of the root of the nose. They are irregularly triangular in shape, the apex being directed outward and forward, the base being the ethmoid bone, and are formed by the separation of the plates of the frontal bone. The outer plates lie beneath the inner part of the brows and give rise to the nasal eminences and the superciliary ridges, and extend into the inner part of the orbit. The inner is above and forms the cerebral floor, outside the cribriform plate of the ethmoid. The walls of the ethmoid cells and the septum between the sinuses complete their boundaries.

Their size is variable—from mere rudiments to the size of an English walnut, and they are frequently unequal, the left usually being the larger. They are larger in the male than in the female and increase in size from rudimentary proportions in childhood to full development in advanced age. Deviations from the normal are seen in bony septa or the absence of the partition wall which normally divides the sinuses.

Each is connected with the nares by the infundibulum whose external orifice is in the upper, inner angle of the middle meatus. They are lined by a mucous membrane, continuous with that of the nose, but peculiar in its intimate blending with the periosteum.

Physiologically, the sinuses would

seem to be merely for mechanical purposes and protective of other structures. The supraorbital prominences give defensive protection to the eyes from blows, and the double plate with space between is more resistant than a single plate of double strength, or two superimposed plates. Violence that would break the outer plate but be successfully resisted by the inner might not break through a heavier single plate, but might do it sufficient injury to menace the vital structures contiguous, and would permit concussion or contusion. This suggests that the size of the sinus is in a measure an index to the combativeness of its possessor. The male being the more pugnacious, has a more developed sinus than the female, and the natural defensive position being with the left side of the head in front, would account for the greater size of the left sinus. Animals which fight with their heads have relatively larger sinuses than those which do not. Pathological conditions may be considered as coming from three sources—from without inward through the outer tables; in situ; or from the nasal cavity.

Direct violence may produce fractures, with or without depression, accompanying which a body foreign to the cavity may find entrance and lodgment. If no deformity result from simple fracture of the external table, no special treatment is necessary, but in depressed fractures the bone should be elevated, and loose fragments removed, care being taken that no obstruction to the nasal outlet remains. The orbital portion may be ex-

pressed and if it cannot be restored from within the conjunctiva may be slit and an instrument passed back and reposition of fragments thus accomplished.

Fracture of the inner table is not likely from *contre coup*, owing to the egress of contained air through the infundibulum, but if violence to the outer table be sufficient to cause forcible entrance of a foreign body into the sinus, care must be exercised not to overlook a depression of the inner table.

Solution of the continuity of the inner table is liable to be more disastrous here than in places more favorable to protection from infection. The very thin covering of the bone and direct connection with the nasal cavity menace the meninges. The greatest safety would be given by careful cleansing and packing, until granulation should have sealed the opening into the cranial cavity.

How to restore a depressed fracture in this situation is not discussed by any writer so far as I know, so I venture the suggestion that in difficult cases an opening above the plate admitting an instrument which could be pushed directly backward over the depressed bone would permit safe reposition, without so much danger as there would be in trying to pick sharp fragments out from within the sinus.

The sinus is not a favorite site for neoplasms, consequently the growths most frequently found here are encroachments from neighboring locations. Carcinomata, syphilitic growths, cysts, polypi, osteomata and other tumors are encountered but rarely. Their symptoms are pain, long and continuous, referable to the superciliary ridge and root of the nose; sometimes discharge from the nose; tenderness of the overlying parts is often early manifest. Continuous growth causes thinning of the bony walls, with pressure on the surrounding parts, the brain, eyes, nose and forehead. Great deformity sometimes re-

sults. The application of general surgical principles is called for in the removal of these growths.

Of the diseases coming by way of the nasal passages are from infections and foreign bodies. Here, as elsewhere, free drainage is necessary for the maintenance of health. The great frequency of malformations and malpositions of the bones of the nose furnishes a predisposing cause so marked that the wonder is diseased sinuses occur so seldom.

So long as the infundibulum remains freely patent, inflamed surfaces drain and heal, but swelling of the mucous lining or impingement from diseased neighboring parts, or foreign bodies in the nares, tend to obstruct the egress of disease products (or physiological secretion for that matter) and symptomatic disease begins.

Influenza, scarlet fever, erysipelas and pyogenic germs are amongst the most frequent intruders, but any infectious disease of the nose or throat may furnish the germs for frontal sinus implantation.

Cleansing antiseptic sprays or irrigation of the parts, especially when operated from the pharynx, serve to relieve the nasal disease and are the best means of combating incipient or mild infections of the sinuses, by providing better drainage, even more than removing infection. Suprarenal preparations or cocaine so contract the tissues as sometimes to open the way into a sinus, otherwise impatulous. Inhalations of hot vapor and hot fomentations externally give comfort and promote cure. Baths are of great service.

Irrigation of the sinus itself is sometimes possible by means of a catheter, but my limited experience with it has not been favorable. The cases requiring it are usually those presenting deformities of the septum or turbinate bodies or abnormal ethmoidal cells, which render catheterization difficult and irritation from the effort more harmful than the benefits derived.

Nasal polypi or other foreign body in the nose demands removal. Adenoids should be cleared away and large or infected tonsils remedied. Otherwise chronic conditions will result and empyema, granulation or necrosis have to be dealt with.

If these have already occurred a more serious problem confronts us.

We shall find pus oozing from the middle meatus at its upper, inner angle, and dripping on the posterior pharyngeal wall, and if a probe be passed up through the infundibulum it will be followed by pus on its withdrawal. The patient suffers great pain in the brow and redness, swelling, and tenderness are present until there is a discharge of pus. Sometimes this comes through the nose, forcing its way through the infundibulum or into the ethmoidal cells, relief following the evacuation. It may, however, burrow into the orbit through the orbital plates of the frontal and ethmoid bones, or into the meninges, causing a cerebral abscess. I saw one case of the latter condition, in which, despite late anterior evacuation, death resulted from meningitis.

The length of time a purulent infection of the frontal sinus may continue if it find occasional temporary relief by evacuation, is indefinite. I operated upon one case which had given severe trouble for 14 years.

It is not easy to differentiate neoplasms, retention cysts or empyema in this situation from each other or from similar conditions in the other adjacent sinuses. A probe passed into the infundibulum or ostium maxillare will be followed, upon withdrawal, by pus, in case of empyema of either cavity, but the location of pain and other clinical facts will locate the seat and character of the trouble most frequently.

Having determined that empyema exists, anything less than effective drainage is inadequate. The frontal bone may

be trephined or chiseled through, just outside the root of the nose, the cavity cleared out and drainage established, or entry may be made through the ethmoid as nearly as may be following the infundibulum.

If we content ourselves with the opening through the frontal, we shall very frequently be disappointed in achieving a satisfactory result. I feel sure it is an imperative duty to make free opening downward into the nose and insert an efficient canula, otherwise the imperfect drainage will result in recurrence and reopening of the frontal wound. Of course a free opening of the frontal bone can be maintained until granulations fill the sinus, thus obliterating it, but this is very tedious and troublesome. A silver or rubber canula should be maintained till a healthy condition exists about it, when a free opening will have been established.

Opening from below is not always easy. Deflected septum and enlarged or malformed turbinated bodies frequently offer difficulties. It is well to remove any part that obscures the view and then push a drill through the ethmoid cells, following as closely as may be the course of the infundibulum upward and outward toward the inner part of the superciliary ridge. Mechanical drainage should be maintained until swelling has subsided.

In India and some other countries quite frequently insects secure lodgment for their ova in this sinus and cause great annoyance. I have never heard of such occurrence in this country, but one of my earliest recollections is of efforts to get rid of grubs from the heads of sheep on my father's farm, by striking the animal with a club over the frontal sinus.

A FEW FACTS ON BLOOD PRESSURE.

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Hypertension may be divided into two classes,—functional and essential. Functional elements of blood-pressure vary with changing blood distribution, especially with the demands for blood on the part of the brain, which is more dependent on general blood-pressure than the other organs. The essential blood-pressure represents that pressure required to overcome the resistance of the arteries due to this necessary vasomotor tone. In states of continual high blood-pressure due to the pathological effect of disease, the essential element must rise also. This is a very important practical consideration, for a fall too near the essential amount is dangerous to life *per se*. Where the average blood-pressure has been permanently above 200 M. M. the lower limit must be above 75 M. M. Hensen cites a case of chronic nephritis with an agonal pressure of 180 M. M. Likewise a fall of 30 M. M. in a patient with a constant blood-pressure of 150 M. M. will meet with much less serious results than a like fall in a blood-pressure of 225 M.M. A continued fall in pressure is far more significant of danger than any numerical value, as Cook and Briggs insist.

Functional hypertension is further divided into physiological, pharmacological, toxic and cerebral anemia, of which the latter is the most important. In this condition we have the highest records of blood-pressure attained in man, and if one would intelligently utilize the indications of blood-pressure in diagnosis and treatment, he must understand underlying causes. The monographs of Kocher, Hill, and Cushing

comprise a most important contribution, as well as a perfect elucidation of the subject. Acute cerebral anemia is known by loss of consciousness, respiratory spasm, slow heart, rise of blood-pressure with cessation of respiration, fall of blood-pressure, accelerated heart and death. This picture indicates that the bulbar centers are first excited, then paralyzed. If a state of shock supervenes in any animal or the anemia be slow of onset, the excitatory symptoms fail to appear. During such events Traube-Hering blood-pressure waves and Cheyne-Stokes respiration appear.

Intra- or extra-dural hemorrhage, or cerebral compression from any cause produces a like result. This no doubt seems peculiar. The cranio-vertebral cavity being a closed cavity, the brain substance incompressible, the blood content of brain constant, except for a slight absorption of cerebro-spinal fluid at high pressure, there will be little room for any foreign body except that made at the expense of the blood in the neighboring arteries and veins. Compression therefore produces local anemia from cessation of blood flow, to which the symptoms are due, and not the compression. The veins are narrowed at first and capillary pressure raised. Kocher calls this "the stage of compensation." There are few or no symptoms at the most. Venous stasis returns from slight increase of intracranial pressure, much diminished capillary flow, and brain tension soon equals the arterial—Kocher's "initial stage of manifest cerebral compression." Numerous subjective symp-

toms of general cortical or cerebellar anemia appear: headache, vertigo, choked disc. Should local compression be over an extensive area or situated in the posterior fossa; or if general cerebro-spinal compression result, the circulation in the medulla will be interfered with, and bulbar symptoms, consisting of a slowing of the pulse from stimulation of the vagus center and some rise in pressure from vasomotor stimulation, make their appearance.

Any further increase in pressure will now empty the veins and capillaries and as it passes the level of arterial pressure will soon cut off the circulation. This third advanced stage of manifest cerebral compression is in reality an acute cerebral anemia and leads to absolute loss of function. Now the vasomotor centers in the medulla respond to the increase of pressure, step by step, to preserve life, through an automatic effort, so to speak. Three hundred to four hundred M.M. pressure results frequently from such an effort put forth by the vasomotor center. Each rise, however, is not maintained. It seems to over-compensate, because every rise is succeeded by a fall, or pendulum-like oscillations which are called Traube-Hering blood-pressure waves. Synchronously, the respiratory center shows a similar rhythmical variation in its activity. Deep breathing coincides with period of high blood-pressure and established circulation, apnea with its interruption,—clinically Cheyne-Stokes respiration. The vagus center likewise is stimulated and the pulse rate falls materially, as everyone has noticed in apoplexy. This, in part, antagonizes the good effect of vasomotor activity. Should intra-cranial pressure prevail too long, hence, blood-pressure ascend too high, the heart fails in its effort to maintain the circulation and the medullary centers become exhausted. The final paralytic stage supervenes, a running pulse and hypotension

followed by death. This functional rise of blood-pressure during acute cerebral compression is absolutely essential to maintain life. A fall of 30 M.M. in such a case is of more dangerous import than a like fall in a case of 150 M.M. pressure. Therapeutically we are lost. Hypertension depressors would kill our patient quickly. Decompressive measures as advocated by Cushing, Kocher, Leonard Hill and Crile, are indispensable for the cure of the patient. This step uprise of blood-pressure so readily obtained with our present day manometers indicates these measures at once. The vasomotor centers must not become greatly injured or our surgical measures are futile. In concussion we frequently see a hypotension. Stimulation by saline transfusion would be indicated in lieu of surgical relief. From the general picture of our case, and time elapsed since injury, one can easily differentiate a hypotension from a simple concussion, and a hypotension from the paralytic stage of intradural compression. It seems to me that surgery should be our resort in case of apoplexy for a removal of an intracerebral clot with extreme hypertension, as in cases of extra-cranial injury with extreme hypertension.

Under essential hypertension we have one class of diseases that raises the essential hypertension or agonal pressure. Traube, Conheim, Israel, Muller, Bamberger, Adams and Senator have frequently advanced numerous theories and engaged in heated controversies as to the cause of hypertension and cardiac hypertrophy in renal diseases. To be brief the facts are these:

I. Hypertension results from irritation of the cardio-vascular system through toxic products circulating therein; and this hypertension seems to be higher in the interstitial variety than in any other.

II. In renal diseases the splanchnic system is generally involved along with the systemic system, thus the splanchnic

system cannot compensate to the same degree to modify the hypertension as if it were uninvolvled.

III. The cardiac hypertrophy is due to primary stimulation during earlier stages of the disease, and later, to the circulating irritant. The hypertrophy may be concentric or eccentric, some adhering to the former and some to the latter view.

Blood-pressure may help us to elucidate some of the obscure cases that come to us in our everyday office work. Renal and cardio-vascular changes are insidious in their onset and a mild degree of hypertension frequently escapes our attention in rapid examination. Though we know by experience that interstitial nephritis produces a higher tension than other renal lesions we cannot make a positive differential diagnosis. In cases of contracted kidney the hypertension is important and most constant; coincidentally with this we have an enlarged heart which cannot easily be made out in obesity, in women with mammary hypertrophy, or in emphysema. Frequently albumin in urine, casts, etc., will not be looked for in the first examination and their presence would be doubtful in a majority of cases where blood-pressure will give us a cue at once. When edema occurs coincidently with renal changes, the manometer fails to give us accurate records.

Edal has made a study of eight cases of cyclic albuminuria to find the relation that it bears to blood-pressure. Ordinarily cold baths and arising from bed would cause a rise of blood-pressure, whereas in these cases a fall occurred, albumin appearing simultaneously. In warm baths the primary rise in pressure was quickly succeeded by a fall, with albuminuria. No constant relation between the amount of albumin and rate or degree of fall of pressure has been demonstrated. Albumin excretion is known to be dependent upon the rate of blood flow through the kidney, the rela-

tion being an inverse one.

Erlanger and Hooker have made determinations to find a relation between blood-pressure, amount of urinary excretion and albumin, but found no constant relation. These observations, coupled with Edal's work, throw some light on the variation of albumin in urine, but not the cause of it. They throw some light on an interesting question and may prove of value in directing work in the future.

Manometric estimations prove useful in two classes of cases of weak heart, those with hypertension and those with hypotension. In the former group we include those with hypertrophied hearts which are insufficient to compensate for the increased peripheral resistance, whether due to renal disease, to arteriosclerosis, or to primary myocardial disease, complicated by Bright's disease or arterial disease. The second group includes the primary, uncomplicated forms of myocardial disease or the terminal stages of the former group. The cases of primary, uncomplicated cardiac insufficiency have high normal pressures with fairly normal pulse pressure. Those with hypotension are prone to have edema and marked evidence of right ventricular failure. It has been the custom to diagnose "fatty heart" in all cases of cardiac incompensation, showing cardiac enlargement, not due to valvular defects. Lately we call it chronic myocarditis. The pathological diagnosis of stained sections of such cases is difficult. Chronic myocarditis seems to describe the real condition. Clinically, however, it is wise to use the term with discretion and not use it to screen a multitude of pathological and clinical ghosts. Blood-pressure estimations in these two classes are indispensable, since a clinical demonstration of an enlarged heart in cases of mammary hypertrophy, emphysema, etc., is nigh impossible.

Blood-pressure in acute infectious dis-

eases is always increased during the height of the disease. Physiological experiments have been undertaken by Romberg and Pässler to study the cause of collapse that so frequently arises in such cases. Death during acute infectious diseases where due to extreme toxemia, is frequently ascribed to "heart failure," when that is not the true picture at all. In collapse in these diseases we find a small, empty and rapid pulse. There are no evidences of pulmonary edema; merely extreme prostration, cold skin, and ineffectual heart. The striking similarity of death from hemorrhage, and the absence of the usual sequences of cardiac asystole have made numerous clinicians interrogate the ordinary interpretation and ask themselves whether after all the patient's vaso-motor mechanism might not have failed. The paper of Romberg and Pässler shows clearly how clinical problems can be elucidated by experimental physiology. They injected 250 animals with the pneumococcus bacillus, pyocyanus, or diphtheria bacillus and studied the collapse which occurred. They measured the mean carotid pressure at different stages of the disease and the effect upon it, (1) of abdominal massage, which increased the work of the heart by supplying more blood; (2), of compression of the aorta above the diaphragm, which makes work for the heart maximal; (3), of irritation of the nasal mucous membrane with a Faradic current, which causes extreme reflex vaso-constriction, and (4), of short asphyxia (30 seconds) which acts similarly, only on both medullary and spinal vaso-motor centers, while sensory stimulation affects only the center in the medulla. They reasoned that should there be no rise in pressure from sensory irritation or suffocation, while abdominal massage and ligature of the aorta still called forth a well-marked one, then the heart must be functionally capable and the vaso-motor mechanism at fault. To

determine whether central or peripheral vaso-motor mechanism was to blame, they injected barium chloride, which caused constriction of the arteries by purely local action upon them.

Their experiments showed that the blood-pressure and the response to all procedures remained perfectly normal throughout the early stages of the disease, being unaffected by *never*. The greatest elevation of pressure was obtained on stimulating the mucous membrane of the nose. When the animals showed signs of impending collapse, the blood-pressure, although still normal, began to sink, while the heart beat more forcibly. Hand in hand with this went a great reduction in the rise of pressure from sensory irritation, a moderate decrease in asphyxial elevation but as high a pressure as before, after abdominal massage. In many cases the pressure did not fall until reflex rise had been almost abolished, evidently being maintained by increased cardiac energy in spite of the vascular dilatation. Finally in complete collapse, which developed very rapidly, the aortic pressure fell to the lowest level as after destruction of the spinal cord. No reflex rise could be obtained, but abdominal massage gave an immediate elevation. It was evident, therefore, that the circulatory disturbance at the height of the infection depended absolutely upon paralysis of the vessels and not upon any damage to the force of the heart. In diphtheria and pneumococcus infections there was some divergence. In pneumococcus infections the heart generally reacted to abdominal massage, whereas diphtheria toxin acts upon the cardiac muscle. Hasenfeld and Tennyvessey, as well as Romberg and Pässler, found that the diphtheria toxin acts upon the cardiac muscle to some degree. Von Stejskal has combated the theory of vaso-motor death in diphtheria, by attempting to show that the action of the toxin upon the cardiac muscles is essentially re-

sponsible for cardiac failure in diphtheria. Again Pässler and Rally have corroborated the vaso-motor theory of death in diphtheria by the application of Von Stejskal's own methods. They have shown that while the damage to the heart is actual, nevertheless it is not the cause of death at the acme of the infection. This, in diphtheria, as in pneumococcus septicemia, is due to vaso-motor paralysis which the heart is able, for a time, to counteract.

A continuous record of blood-pressure in typhoid fever will enable one to elucidate some of the doubt in complications like perforation and hemorrhage. In perforation there is an initial rise of blood-pressure succeeded by a fall. Hemorrhage shows a progressive fall in blood pressure without an initial rise. Jane-way cites a case of typhoid fever where the blood-pressure had been followed. Suddenly there developed symptoms of perforation but no change in the blood-pressure. Nevertheless, surgical measures were introduced, but no perforation was found; in fact, no cause was found in the abdomen to explain the symptoms.

Thayer has examined the systolic blood-pressure and general vascular system of 165 persons who previously had had typhoid fever, and found an average higher pressure than a like number of normal people. Twenty-seven per cent of them had a pressure of 180 M. M., while 10 cases had a pressure above 200 M. M. Of 265 normal individuals who had never had typhoid fever, but one had a pressure of more than 180 M. M. Typhoid fever, pneumonia and diphtheria alter the cardio-vascular apparatus in the majority of instances. To detect this we need blood-pressure estimations, and, too, we can give a clearer prognosis. Furthermore, in pneumonia we can anticipate the crisis because this phenomenon is preceded by a falling blood-pressure. Accurate blood-pressure records

in pneumonia are difficult to obtain because of the peripheral cyanosis.

Blood-pressure records in certain surgical problems have been so ably presented by Crile, Cushing, Cook and Briggs that the manometer is finding acceptance as readily on the surgical as on the medical side. It certainly points out the absence of renal and vascular changes. Systolic blood-pressure estimations during anesthesia, hand in hand with taking the pulse, give at a moment's notice the condition of the patient. All peripheral operations are characterized by a vaso-constriction which means an increased pressure. In abdominal operations, the opening of the peritoneum causes a small rise. Sponging the intestines, washing out the abdomen, manipulation of the abdominal viscera, especially in the upper segment, all lower the pressure. Crile says "he can tell by a surgical blood-pressure record, whenever the peritoneum has been irritated," from increase of blood-pressure.

In surgical accidents, hemorrhage, collapse and shock, blood-pressure gives one exact data. Crile says, "that collapse is only a forerunner of shock." Of course, shock included the depression of other activities, but its danger is in the hypotension that results and this is due to loss of vaso-motor control and not to cardiac failure. Crile has clearly demonstrated that profound shock can be produced by over stimulation with strychnia as well as by reflex stimulation from a peripheral injury. A prophylactic to shock, then, in amputation of large trunks, is an injection of cocaine to block peripheral stimuli. Crile treats the superior laryngeal nerve with cocaine before surgical operations of any magnitude on the neck.

What is the therapeutic indication in shock? Some men have shown the uselessness of strychnia and digitalis, because the vaso-motor center will not respond to any stimulation centrally or

peripherally. Saline transfusions come nearer to solving the difficulty, but frequently prove futile. Adrenalin intravenously in dosage of 1:50,000 or 100,000 with addition of atropin seems to net the greater majority of successes. Cook and Briggs criticize the procedure

most severely and claim that digitalis and strychnia prove efficient. Crile has introduced a pneumatic suit to be used in shock, to maintain blood-pressure peripherally. An animal in profound shock has been kept alive for hours by the use of a pneumatic suit.

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PROSTATECTOMY*

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The relief of suffering mankind, when possible, is so mandatory upon the surgeon that being applied to by a man over fifty years of age, suffering from inability to completely pass his urine, necessitating frequent nocturnal micturition, which robs him of his normal composure and rest, the case should at once be entered into with a thought that ultimately an operation would be needed.

The patient should be asked to urinate in your presence and after he has completed the act, a catheter should be passed into the bladder to ascertain if any urine remains. Finding it there, the surgeon should at once ask himself the question as to what it is that renders it impossible for all the urine to be passed in the normal way.

A great deal can be gained by palpating the perineum, making a digital examination by way of the rectum, to ascertain the size of the prostate gland. Finding it unduly enlarged, with no

existing stricture, one can safely conclude that an enlarged prostate is the cause.

To further insure the correctness of his diagnosis, if accustomed to the cystoscope, it is an easy matter to put your patient up in position on an operating table and there anesthetize the urethra with a one per cent solution of cocaine, fill the bladder with sterile water and insert the instrument, as easily as you would a sound. Then it is that the sense of sight will make your diagnosis indisputable.

Enlarged and overlapping lobes are benefited in no other way than by removal. All such methods as are resorted to by some in the use of electricity are nothing less than charlatanism.

Some years ago it was thought that castration was an easy means of relief, but of late years I doubt if it has been practiced at all. Having determined upon an operation, it is right that the patient

*Read before the Emmet County Medical Society.

should be forewarned that the operation sometimes results fatally, but that should he recover, which is very probable, he would for the rest of his life have comfort, amply great to repay him for the little uncertainties he is about to undergo. He should be further told that his sexual powers will in all likelihood be weakened, but rarely destroyed.

A few days in the hospital beforehand will be necessary to combat the cystitis which invariably results in a more or less degree. Bladder irrigations with sterile water, followed by the introduction of a five per cent solution of argyrol are indicated.

The operation is begun after all the necessary precautions have been taken to render the patient as clean as possible. A Young's forceps, which I present, is introduced into the bladder and opened wide. Once inserted it is allowed to remain ready to be drawn upon when the time arrives for such manipulation. Some operators make a transverse cut extending across the perineum, while others prefer the older and much more used method of cutting over the sound along the median raphé. Having gotten well inside the skin, dissection can be made slowly, avoiding the levator ani and transverse peronei and recto-urethral muscles.

The finger of an assistant moving in the rectum will greatly aid the operator

in keeping well located. Nearing the prostate, it is well then to draw down the prostate with the Young's retractor. This can be done to such an extent that the lateral lobes come readily into the wound and before one's vision. This little instrument I here show is a very handy thing to scratch the sheath; that being done, one can with the finger or a curet enucleate readily its contents. By this method one need not fear so much the hemorrhage which can be seen and controlled. This method, I believe, is preferable to the suprapubic operation, which, however, has its advocates and commendable advantages.

Many self-retaining appliances are on the market to be inserted for drainage, as it is well known amongst operators that not given drainage the patient may die in a few days from uremia. I see no reason, however, why these should long remain in situ, as after two weeks' drainage can be had through the urethra, thereby diminishing the danger of a chronic fistula, opening through the perineum.

I herewith submit for your notice a prostate gland removed after this fashion in the late summer; from which operation the patient made a splendid recovery. He writes me recently that he is enjoying the best of health and immunity from nocturnal annoyances.

Consumption among Japanese laborers is increasing to such a degree that the figures are becoming a source of anxiety to Japanese merchants and officials. A large percentage of laborers who are sent back to Japan by the Japanese charity associations are consumptives. It is claimed by the Japanese newspapers commenting on this matter, that through the lack of hospital accommodations in the Japanese labor camps tuberculosis increases at an alarming rate. They suggest that a new system be employed in dealing with the sick in these camps, as the Japanese

are quite ignorant of even the most simple health safeguards.

Nine deaths from tuberculosis were caused during the last year in the Department of Finance of New York City, due, it is claimed, largely to infection from the books and papers. After one of the bookkeepers in the department died recently at his work from a hemorrhage caused by consumption, the city health authorities closed the office and made a thorough fumigation of the books and premises.

PUERPERAL ECLAMPSIA.*

**JOHN O. GROOS, M. D.,
Escanaba.**

The subject of puerperal eclampsia is one which has attracted attention from the earliest days of medicine. Notwithstanding this, it is ever new. With a mortality of from 20 to 35 per cent, occurring about once in every 200 or 300 cases, often with a sudden and unexpected onset, it well may be considered one of the most terrifying complications of labor. These facts also render it one of the most important of obstetrical subjects, and one worthy of careful study.

Eclampsia is an acute disorder of pregnancy and parturition, characterized by periodical convulsions. Modern belief teaches that it is the result of toxemia, an accumulation of toxic waste in the blood (urea and ammonium carbonate). It has been ascribed to sudden anemia of the brain, and by some observers to microbic infection. All that can be said at the present, is that eclampsia is the retention in the body of substances that should have been disposed of by the excretory organs, mainly the kidneys. Owing, however, to the inability of the adrenal system to convert the excess of waste incident upon the fetus, into benign and eliminable end-products, an accumulation in the system is the result. As these toxic wastes provoke inordinate vascular tension, an excess of blood is driven into all capillaries, including those of the spinal system and cortex, both the latter being thus rendered hyperexcitable, and a convulsion occurs. Thus it may be inferred that the convulsion is due to an increased cerebro-spinal tension, the headache, dizziness, irritability,

and sudden blindness, the clonic, tonic, tetanic spasms, the stupor and coma all point to increased intracranial pressure.

Among the pathological changes of the various organs may be stated:

- (1) Kidneys—Parenchymatous degeneration, glomerulitis, and thrombi.
- (2) Liver—Multiple hemorrhages and necrosis. Hemorrhagic and anemic necrosis of the liver with thrombi in the intra and inter lobular branches of the portal vein.
- (3) Heart—Hypertrophy of the left ventricle, multiple hemorrhages and necrosis and parenchymatous degeneration.
- (4) Lung—Hyperemia and edema of the lungs. Numerous thrombosed capillaries and veins and placental-cell emboli.
- (5) Brain—Punctate hemorrhages in the areas of degeneration near the thrombosed vessels.
- (6) Pancreas and adrenals—Hemorrhages and necrosis.
- (7) The presence of bile pigment in the blood of eclampsia patients is not rare.

Symptomatology.

Eclampsia should always be feared if there are signs of kidney disease or disturbances during pregnancy, for diseased kidneys are more liable to be insufficient than healthy ones. The prodromal symptoms of the attack are sharp pains in the head, epigastrium, or under the clavicle, failure of vision, great restlessness or stupor. A few moments after the prodromal symptoms, the attack comes on

*Read before the Delta County Medical Society.

with a stare; the pupils are at first contracted; the eyelids twitch; and the eyeballs roll; there are spasms of the muscles of the mouth and the neck; the head is pulled from side to side; the spasm then spreads to the trunk and upper extremities; the arms are strongly flexed, and the fingers are bent over the thumbs. The lower extremities are rarely affected, although the thighs may be flexed upon the abdomen. Consciousness is lost during the convulsion and for some time after, with each recurring fit the stupor deepens until at length there is unbroken coma. The temperature usually rises with each convolution.

The convulsions of eclampsia must be distinguished from those of epilepsy, hysteria, brain disease, hemorrhage, or some source of irritation in the body.

Prognosis.

In attempting to forecast the end of a case of actual eclampsia it is not wise to attach too much importance to the number of convulsions, as they not only vary with the quantity and nature of the poison, but also with the nervous equilibrium of the patient. The occurrence of convulsions after labor points to the presence of a grave state of affairs. The most favorable cases are doubtless those in which convulsions occur during labor and initiated by some definite external stimulus, such as obstetric manipulation. The quantity of albumen in the urine is a false guide, as in certain cases there is no albumen. The quantity of urea affords a much more reliable criterion. The gradual increasing severity of the convolution after labor, is indicative of a fatal termination.

Treatment.

In order to treat any morbid condition rationally it is necessary to have a more or less clear conception of the cause and the course of the morbid process, since otherwise treatment must become merely

symptomatic and be entirely palliative rather than curative.

Eclampsia is recognized today as one of the toxemias of pregnancy, the clinical course of the disease, and the widely disseminated pathological lesions which are found at autopsy, both tending to the same conclusion. The fact that it is limited to the pregnant state inevitably forces the conclusion that the particular toxin, or group of toxins, which give rise to the pathological condition, must in some way depend for their production on the development of the ovum and can not be due to external conditions or infection.

These toxins must arise from one of three sources: They may be due to a faulty maternal metabolism with accumulation of abnormal products in the circulation, to abnormal conditions at the placental site, as infection, or they may be produced during the development of the ovum and pass into the maternal economy through the placenta.

That faulty maternal metabolism is not the source of the toxemia would seem to be proved by the fact that eclampsia is limited to the pregnant state, and that the removal of the production of conception, or the death of the child in utero gives almost immediate relief from the severe symptoms in a large proportion of cases. Infection or other abnormalities at the placental site may be eliminated for the same reason, since if the placental site, i. e., the uterine wall, were the seat of the morbid process, the absorption of the toxins could hardly be shut off promptly enough to give the marked changes we see in at least one-half of the cases. We are, therefore, forced to the conclusion either that eclampsia is a toxemia arising from the absorption of products of fetal metabolism in excess of what the maternal channels of excretion can eliminate under normal conditions, producing an intoxication from an overwhelming dose of

toxins, or that an accumulation of toxins occurs owing to a lack of proper excretion of an amount which should ordinarily be cared for, producing an intoxication from accumulation. That both of these conditions may occur would seem to be proven by clinical observation, since we see on the one hand, the eclampsic attack developing suddenly out of a clear sky in a patient who has shown no previous signs of a toxemia, and in whom the urine drawn from the bladder after the onset of the attack is free from albumen, and contains a normal percentage of urea, proving that the intoxication was of sudden origin, while, on the other hand, the symptoms of toxemia may have been present for days, or even weeks in neglected cases, before the onset of convulsions.

The next point to be considered is what effect the toxins produce. In a general way, all cases of eclampsia may be divided into two groups, hepatic and renal, according to whether the liver or kidneys are most prominently involved. The distinction is rather a difference in degree than of kind, or else we are dealing with two distinct toxemias and are trying to classify them under one heading. The more severe cases, i. e., those which come to autopsy, show almost invariably the characteristic lesions of the liver. These lesions may have been associated with symptoms during life, such as jaundice and tenderness over the liver, or there may have been no symptoms pointing to the involvement of the liver. The less severe cases belong to the renal type, are seldom fatal if properly treated, and are characterized by a group of symptoms closely analogous to those of renal insufficiency. On close analysis, the two classes of cases differ only in the severity of the toxemia, and that the hepatic cases arise either when the system has received an overwhelming dose of toxins at the start, or when the early stages of the toxemia have been neglect-

ed. The effects of the toxins are those of a strong irritant poison, acting both on the nervous centers and on the tissues themselves. The irritation of the cerebral and spinal centers results in the convulsive attacks, and in stimulation of the vasomotor centers to the degree that the excretory organs practically suspend their functions for the time being, owing to lack of material to excrete. The irritation of the tissues is shown by the appearance of albumen, blood and casts in the diminished urine, and by the pathological lesions found at autopsy.

The great dangers to the patient are from failure of the circulation, due to either the direct violence suffered by the heart during the tremendous changes in the blood pressure, induced by the convulsive attacks, or to the exhaustion which may follow the extra amount of work thrown on the heart by the over action of the vasomotor system, and by the rupture of cerebral vessels during the convulsions.

Before considering the curative treatment of eclampsia, a brief consideration of the prophylactic treatment is in order, because there seems to be no question but that in the large majority, if not in all of the patients who show signs of a beginning toxemia, the development of eclampsia can be prevented by prompt and efficient treatment.

The prophylactic treatment may be briefly summarized as the prevention of an accumulation of toxins in the system, combined with the ordinary hygienic measures to maintain and improve the patient's health and general condition. The routine is simple and not burdensome to the patient, and its principal object is to maintain the free action of the excretory organs. The bowels should be kept thoroughly open, and a diet should be advised with this object in view, the free use of fruits being especially recommended. Failure of nature in this respect should be met by the daily use

of such of the mild cathartics as may be necessary, combined with the ingestion of large quantities of water, at least six glasses being taken between meals. The efficiency of this treatment may be distinctly increased if necessary, by the periodic administration of calomel, followed by a saline purge, thus cleansing the intestinal tract and preventing the accumulation of any large amount of waste products.

The urine should be carefully examined at frequent intervals, and any suspicious signs should be met at once by a thorough flushing of the system. The appearance of albumen calls for increased watchfulness, and the development of signs of renal irritation for rest in bed, a liquid diet, and an attempt at the thorough elimination of the offending toxins, by means of free catharsis, diaphoresis, and diuresis. The skin should be kept free and active by the use of daily baths. The appearance of convulsions, or the failure to effect a marked diminution of the toxemic symptoms calls for the immediate application of the most radical treatment, since it is in the late cases that the fatal results mostly occur. Treatment to be efficient must have four distinct objects in view: (1) Prevention of further absorption of toxins by removal of the cause; (2) Limitation of damage by the toxins already in the system; (3) Elimination of toxins; (4) Treatment of the patient as distinguished from the treatment of the disease.

(1) Prevention of further absorption.

Although not susceptible at present of direct proof, there seems little doubt but that the toxemia is due to an accumulation in the maternal system of waste products of the child, and the inference is clear that absorption can only be prevented by the immediate emptying of the uterus. Delay while attempting to suppress or limit the effects of the absorbed toxins simply serves to detract from or absolutely destroys any chance

that the patient may have. The observations of various writers lead to the conclusion that a large proportion of the so-called hepatic cases of eclampsia follow delay in emptying the uterus, while on the other hand, the marked amelioration of symptoms which follow *accouchement forcé* in the majority of cases certainly indicates that the earlier the operation, the better the patient's chances, although a considerable proportion of cases, slight or moderate in degree, will undoubtedly recover under medical treatment. The methods of operation to be employed in delivery must be adapted to the needs of the individual patient, but in general it may be said that the most rapid operation which is consistent with the safety of the patient is the most efficient. In a thin and relaxed cervix, mechanical dilatation and immediate delivery give satisfactory results. In cases with a rigid, cartilaginous cervix, colpo hysterotomy is the operation of choice, providing conditions are favorable. Abdominal Cesarean section, and decapsulation of the kidneys are likewise to be employed in cases indicated for them. Unnecessary laceration and surgical shock are to be avoided, but a moderate amount of postpartum bleeding is to be encouraged, the loss of 16 to 30 ounces of blood being of distinct benefit to the patient, and acting as a venesection. The attempts to treat eclampsia without preventing the further absorption of toxins is irrational.

(2) Limitation of injury. The most important step in the treatment of eclampsia next to removing the source of toxemia, is to limit the damage the toxins already absorbed can do. It is generally conceded that next to the pathological changes in the internal organs arising from the direct action of the toxins on the tissue, the greatest danger to the patient lies in the effect of the convulsions on the heart and in favoring cerebral hemorrhage. The inference is clear that the convulsion must be con-

trolled until the toxins in the system have been eliminated. The most efficient method for controlling the convulsion consists in the administering of chloroform, followed by the injection of one-fourth of a grain of morphine, in combination with the hydrobromate of hyoscine, 1/100 of a grain. The morphine may be repeated twice or three times at hourly intervals, as may be necessary; the hyoscine once or twice, according to the condition of the heart. The effect of hyoscine, as a powerful spinal sedative, renders it exceedingly valuable in these cases, not only in controlling the convulsions, but in relaxing the vaso-motor spasm and thus favoring excretions of the toxins (the depressant action of the hyoscine and morphine on the heart is overcome by the relaxation of the vasomotor system, and in this way diminishes the work of the heart.) After the acute stage is passed the sedative treatment should be continued by the free use of chloral, until the appearance of free excretion shows that the elimination of toxins is going on, and the recurrence of the convulsion is not likely.

(3) Elimination of the toxins. Thus far the treatment has been directed to stopping the increase of the toxins in the system, and to limiting the damage which they may do. The next point to be considered is the elimination of those toxins already absorbed. In the eclamptic patient excretion is almost at a standstill and the excretory organs seem to be paralyzed. This condition seems to have a double origin. The direct irritant effect of the toxins in the blood on the one hand, and a condition analogous to vaso-motor spasm induced by the irritation of the spinal center on the other, combine to check excretion, and both must be relieved to render treatment efficient. The irritant action of the toxins on the organs themselves is best minimized by the free use of normal salt solution, given either subcutaneously or

directly into a vein in appropriate cases, and to a point of tolerance. This serves to dilute the toxins in the blood, and combined with venesection affords an efficient means of reducing the irritating action of the toxins by dilution. In cases which present marked edema, or in which the heart action is very weak, the effect of the saline infusion must be watched carefully in order not to flood the system and increase the tendency to pulmonary edema. An initial dose of two quarts is generally borne in any case, and it should be repeated according to indications. Bleeding is often of great value, even in cases where the pulse is poor, the removal of 16 to 30 ounces of blood being often followed by distinct improvement, both in the symptoms and in the strength of the heart action. The dilution of the toxins in the blood, combined with the sedative action of the morphine and hyoscine on the spinal centers, is usually efficient in relaxing the vaso-motor spasm and starting excretion. The hypodermic use of nitroglycerine is also to be advised, since it acts as a direct vaso-motor dilator.

The intestinal tract is the most important channel for the excretion of toxins, although a considerable amount is eliminated in the urine; the action of the skin is comparatively insignificant. If the patient is unconscious and cannot swallow, or is under ether at the time of delivery, the introduction of one or two ounces of a saturated solution of magnesium sulphate into the stomach through a stomach tube, will usually result promptly in copious watery discharges. One or two drops of croton oil may also be given to accelerate the action of the bowels. This action, combined with the free injection of normal salt solution, results in washing the toxins from the blood and tissues into the intestines, and rapidly removing them from the circulation. The urinary excretion is best stimulated by the repeated use of the

saline infusions, followed later by the ingestion of large quantities of water or cream of tarter water, when the patient is able to swallow. The skin requires no special treatment, other than the hot pack; it is harmless, and soothing to the patient, especially when restless.

(4) The treatment of the patient. It must never be forgotten in the treatment of a condition of such severity as eclampsia and one which requires such radical treatment, that the danger exists of treating the disease at the expense of the patient, and that we may be called at any time to treat the patient for surgical shock or a failing heart action; that in many cases our efforts may have to be directed principally to attempt to revive the failing heart action; and that in certain cases radical treatment is unwise on account of the surety that it will kill the patient. In such cases the treatment must be directed to the patient's general condition and the disease allowed to care for itself. Free stimulation should be used whenever necessary.

After Care.

For some days after an eclamptic attack the patient should be kept on a liquid diet, so as to throw as little strain as possible on the overworked excretory mechanism, and free excretion should be maintained. Sedatives and stimulants should be used whenever necessary. Nursing of the child, if alive, may be permissible if the condition is satisfactory after the third day.

In connection with this paper, I wish to report briefly a few cases of puerperal eclampsia, occurring in my practice within the last two years:

Case 1. Patient primipara, age 24, and pregnant at term. Called to see her February 2nd, at 6 a. m. There was in attendance an old woman. Labor began February 1st, about 10 p. m., and progressed normally until 3 a. m., February 2nd, when, as the old woman called it,

the patient developed a severe cramp. As I was talking to the patient, she developed another "cramp;" this I, however, recognized as an eclamptic convulsion. I immediately anesthetized her, the cervix was completely dilated, and labor terminated with the forceps, after which no further attacks developed. Recovery of both mother and child was complete. No further treatment was necessary. No urinary examination was made.

Case 2. Patient a primipara, age 20, and pregnant at term. This patient lived in the country. I was called to see her July 23rd, at 6 a. m., and arrived at 8 a. m. Delivery was spontaneous and no attendant was present. At 2 a. m. the patient was discovered lying on the floor in a convolution, during which her baby was born.

The pulse was rapid and weak, for which nitroglycerine was administered subcutaneously. Croton oil per mouth, hot pack twice daily and solution of normal salt under the breasts. This patient did not recover consciousness until July 27th; during the interval chloral hydrate and sodium bromide were exhibited per rectum every three or four hours. Both mother and baby recovered. No urinary examination was made.

Case 3. Patient a primipara, aged 24, and pregnant at term. Called to see her September 26, 1907. Patient was walking about the room, had a slight headache and a severe pain in the epigastrium. She was put to bed, and one-fourth grain of morphine was administered subcutaneously. While injecting the sedative, she developed a severe convolution, which was eclamptic. She was immediately anesthetized, the cervix was found dilated the size of about a quarter, which was completed with some difficulty, and a dead baby delivered with forceps. The convulsions did not cease; they were controlled, however, with chloroform and morphine. The patient was placed in a hot pack; croton oil by mouth; normal salt solution under breast; a venesection done, about one and a half pints of blood being extracted; 15 minims of fluid extract of veratrum viride every 2 hours subcutaneously. This patient succumbed to pulmonary edema at 11:30 a. m. without regaining consciousness. No urinary examination.

Case 4. Patient a primipara, age 19, and pregnant at term. Called to see her November 8th, 1907, at 1 a. m. Her labor was normal, duration 14 hours. She and her baby made a good recovery. November 20th, her husband tele-

phoned me about 11 p. m. that the patient awoke from her sleep, and found that there was a numbness of her left arm, and a little headache; she was quite restless. At 12:30 I was called to see the patient and as I entered the room, her eyes were wide open, and exhibited a rather blank stare. I spoke to her, but she seemed to be unconscious of her surroundings, and she immediately was seized with a convulsion. I put her under an anesthetic, and injected one-half grain of morphine. The pulse was tense and considerably accelerated. Two minims of croton oil were placed on her tongue, and patient put in a hot pack. One quart of normal salt solution was injected under each breast, and a venesection was done, about 16 or 20 ounces of blood being extracted. Patient died at 11 a. m., November 21st, without regaining consciousness. The urine of this patient was examined once a month for four months, and once a

week during the last month, and not a trace of albumen was present during these five months. The quantitative estimation of the urea was not determined.

Case 5. Patient a primipara, aged 23, pregnant at 7 months. Called to see her March 3rd, 1908. Labor was then in progress for four hours, and in three more she was delivered normally of a dead baby. Patient was feeling well, and made no complaints for an hour after her labor. She suddenly, and without warning, developed a convolution. I put her under an anesthetic and injected one-quarter grain of morphine for the convolution and placed two drops of croton oil on her tongue; normal salt solution was injected under the breasts, and hot pack given. Ten minims of veratrum viride subcutaneously were given every hour. She recovered consciousness in four hours and made a complete recovery.

Benefits of Tuberculosis Sanatoria.—In a recent investigation conducted by the National Association, 37 institutions located in 22 different States in all parts of the country were considered. According to information received from sanatorium superintendents, real estate dealers, and various disinterested parties, 67.5 per cent. of these tuberculosis sanatoria have had a favorable influence upon surrounding property, and have been a benefit to the community in which they were located.

In the case of 23, or 62.2 per cent. of the institutions, the presence of the sanatorium helped to increase the assessed valuation of surrounding property. In only one instance has property decreased in value, and there it was due to ignorance of the facts. In 22 out of the 37 cases, the presence of a sanatorium has even been helpful in the recent sale of land, and in only four places has any detrimental effect on sales been shown. In 51.3 per cent. of the cases, residents have been attracted to the community by the sanatorium, and in only three localities have residents been repelled.

Some examples show the increase in the value of surrounding property. In the vicinity of a sanatorium in Portland, Oregon, land has more than doubled in value in three years, and is in demand close to the sanatorium. At Aiken, S. C., property

in the neighborhood of the local sanatorium has increased 400 per cent. since the institution was built. At Hebron, Maine, surrounding property has increased 20 per cent. as a direct result of the presence of a tuberculosis sanatorium. A similar effect upon land values has taken place in other towns, such as Luzerne, Pa.; Liberty, N. Y.; Saranac Lake, N. Y.; Pittsford, Vt.; Mt. Vernon, Mo., and Silver City, N. M. At Asheville, N. C., vacant lots near one of the sanatoria in that city, sell at four times their price in 1900, and those farther from the institution but nearer the city are less valuable. Not a single instance was reported where the presence of a tuberculosis sanatorium, camp or dispensary in a large city has had a detrimental effect on the value of surrounding property.

The Courts of Massachusetts, North Carolina and Virginia have decided that a tuberculosis sanatorium is not a menace to the health of a community, and that it does not decrease the value of land in its immediate neighborhood.

The presence of a tuberculosis sanatorium has been a benefit also to the farmers in its vicinity from the fact that it affords a market for their produce, and gives more work to the unemployed. The merchants, too, have testified that a sanatorium is a stimulus and help to trade.

The Journal of the Michigan State Medical Society

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OCTOBER

Editorial

Every member of the component county societies, and particularly the county secretaries, should take notice of the fact that medical defense becomes an integral part of the State Society's work after January first. The dues for this work for next year are \$1.50 for each member, and must be sent by the County Secretary with the regular \$2.00 state dues. The full details of the plan are discussed in this issue.

Medical defense against civil malpractice suits will become a feature of the state society work, after January 1st. The advantages of this new department to every member, have been so thoroughly discussed that it seems hardly necessary to reiterate them at this time. The plan adopted by the House of Delegates, by a vote of 27 to 2, and now incorporated in our by-laws, will be found among the proceedings of the Kalamazoo meeting, in this issue. The details are as follows:

A standing committee, to be known as the Medico-Legal Committee, is provided for. This committee consists of one member of each county society, elected by the county society, and an Executive Board of five, elected by the council of the State Society. The counties represented on the Executive Board do not elect a member of the general

committee. The members of the Executive Board are elected for a term of years, so that each new member, after this year, will be chosen for five years. This board will transact the business and the chairman, also elected by the council, will be the custodian of the funds.

The Executive Board will employ a firm of attorneys who will take charge of any suits or threatened suits, and will be the advisors of the local attorney in each case. This firm of attorneys will keep on file compilations of laws, decisions, etc., which information will be the property of the society. Thus a medico-legal bureau with much valuable information on hand, will be established.

This work will be maintained by an initial assessment of \$1.50 from each member for 1910, and each new member thereafter, and \$1.00 per year after the first year. Some county societies have funds from which the special assessment will be taken; others will levy the individual tax.

Any county may elect, by a majority vote of all its members, not to participate in this work. It should be noted that unless a society so votes it is assumed that the members will participate. In case the society votes not to participate, then no individual member can participate in these new privileges.

The defense of members will be undertaken, provided dues are paid before June 1st, regardless of when the cause of action arose, i. e., even if the alleged malpractice took place before this bureau was established. In this state a suit cannot be brought after two years. Suits already threatened or begun will be handled at cost. This provision is to prevent a man who is threatened, from joining the society merely to get free defense. If the cause for action takes place while a member is in arrears, defense will not be assumed, i. e., if a member wishes to keep protected, he

must keep up his dues.

Any member threatened must notify the local member of the committee, go over the case with him, recommend a local attorney and notify the chairman of the Executive Board. The general firm of attorneys will then act in connection with the local attorney, who must be approved by the former. Defense will be carried through all Michigan courts. In case a judgment is secured against a defendant, it must be paid by him.

Points especially to be noted are: Every member participates unless his county society votes not to do so, by a *majority vote of all members*. Back liability of two years is assumed, unless suit is threatened or brought before the defendant joins the society, or before January 1, 1910. In either of these cases defense is furnished at cost. Every member for 1910 pays \$1.50 for the first year. After the first year the rate is \$1.00 per year. If the fund should be exhausted in any one year, the society will advance, as a loan, sufficient funds to carry on the work. A member threatened or sued may recommend his own attorney. He cannot compromise, or settle without the consent of the Executive Board and the general attorneys. Each county society, not represented on the Executive Board, elects one member of the committee at the first meeting after September 1st.

Information regarding any points not understood may be obtained by writing the chairman of the Executive Board, or the State Secretary.



The Executive Board of the Medico-Legal Committee comprises Dr. F. B. T. Tibbals, Detroit, Chairman; Dr. C. B. Stockwell, Port Huron; Dr. E. C. Taylor, Jackson; Dr. C. W. Hitchcock, Detroit, and Dr. Johann Flintermann, Detroit.

It will be observed that three members of this board have been chosen from Detroit. Originally it was provided in the plan that three members *must* be from Detroit. The object of this provision was not understood, and it was the point in the plan which received, in the postal card vote, the most criticism. Frequent meetings of this board are necessary; action must often be taken at once; consultations may be required on an hour's notice; hence, for the easy and smooth working of the plan it is absolutely essential that a quorum of the board reside in the same city. However, this is not provided for in the by-laws. Until the plan is well under way frequent meetings of the five members of the board will be necessary and the Council took this into consideration when choosing the other members of the board. The three Detroit members are those who have had the most experience in the absolutely successful Wayne County League. The chairman of the board is a pioneer in this line of work and has made it a study for seven years. He was one of the first in the country to agitate the movement, and has seen it grow until twelve states already have some form of defense work, while a number of smaller societies have taken it up, and at least three states have some plan under consideration.



The forty-fourth annual meeting of the state society is over. It was a good meeting, but not a record breaker in any way. The arrangements, as planned by the local committee of the Kalamazoo Academy, could hardly have been better, the local accommodations were ample, the weather was propitious and the entertainment and hospitality unsurpassed. The attendance was somewhat disappointing to the advocates of a fall meeting, for although the registration was the largest we have ever had out-

side of Detroit, it was not sufficiently larger to be in any way conclusive as to the wisdom of the change of time. The registration at Jackson in 1906, was 326, at Saginaw in 1907, 325, and at Petoskey and at Manistee about 175. At Kalamazoo, it was 329. We ought never to have less than 500, and there should have been, at the very least, 400 at Kalamazoo.

One feature of the Kalamazoo meeting will be long remembered, and that was the excellence of the program in the medical section. We have never had, so it seems to us, such a large number of well written, well delivered and well discussed papers as at this year's meeting.

The attendance at the sessions of the House of Delegates was better than usual, the business being dispatched rapidly and smoothly. Each year's experience confirms the wisdom of separating the routine business of the society from the general assembly, giving the latter ample time for more interesting things.

The next annual meeting will be held at Bay City, in September, 1910.

The registration at Kalamazoo was as follows:

ANTRIM.—Drs. Wm. A. Evans of Bellaire and R. E. L. Gibson, of Central Lake.

BARRY.—Drs. A. I. Laughlin, Woodbury; G. W. Lowry, Hastings; Donald McLeay, Prairievile; J. W. Rigterink, Freeport; Alice M. Roehrig, Hastings; Chas. Russell, Hastings; F. F. Shilling, Nashville.

BAY.—Dr. H. N. Bradley, Bay City.

BERRIEN.—Dr. E. J. Witt, St. Joseph.

BRANCH.—Drs. W. A. Griffith, Coldwater; Fred H. Harris, Kinderhook; Samuel Schultz, Coldwater.

CALHOUN.—Drs. A. W. Alvord, Battle Creek; G. M. Braden, Scott; J. C. Brown, Battle Creek; E. M. Chauncey, Albion; H. W. Dunlap, Battle Creek; S. R. Eaton, Battle Creek; J. M. Elliott, Battle Creek; James A. Elliott, Battle Creek; E. L. Eggleston, Battle Creek; W. L. Godfrey, Battle Creek; R. M.

Gubbins, Ceresco; Wilfrid Haughey, Battle Creek; W. H. Haughey, Battle Creek; G. C. Hafford, Albion; J. J. Holes, Battle Creek; Meta Howard, Albion; Louis S. Joy, Marshall; A. S. Kimball, Battle Creek; A. F. Kingsley, Battle Creek; A. E. MacGregor, Battle Creek; W. C. Marsh, Albion; W. F. Martin, Battle Creek; M. A. Mortensen, Battle Creek; J. L. Ramsdell, Albion; R. D. Sleight, Battle Creek; R. C. Stone, Battle Creek; Thos. Zelinsky, Battle Creek.

CASS.—Drs. J. H. Jones, Dowagiac; S. L. Loupee, Vandalia; W. A. McCutcheon, Cassopolis; M. P. White, Dowagiac.

CHIPPEWA.—Drs. C. J. Ennis, Sault Ste. Marie; C. W. Thompson, Newberry.

CLINTON.—Drs. A. O. Hart, Maple Rapids; W. A. Scott, St. Johns; James E. Taylor.

EATON.—Drs. A. H. Burleson, Olivet; W. E. Newark, Charlotte; T. L. Peacock, Sunfield; E. C. Palmer, Charlotte; P. H. Quick, Olivet; A. R. Stealey, Charlotte; F. A. Weaver, Charlotte; A. E. West, Kalamazoo.

GENESEE.—Drs. C. B. Burr, Flint; W. A. DeFoe, Otisville; D. S. Jickling, Flint; J. G. R. Manwaring, Flint; H. R. Niles, Flint; H. E. Randall, Flint.

GRAND TRAVERSE.—Drs. H. B. Garner, Traverse City; W. J. Schilliday, Lake Ann.

HILLSDALE.—Drs. B. F. Green, Hillsdale; W. H. Sawyer, Hillsdale.

HOUGHTON.—Drs. E. T. Abrams, Dollar Bay; J. T. Berry, Houghton; W. T. S. Gregg, Calumet; S. S. Lee, Opechee; A. I. Lawbaugh, Calumet; N. S. MacDonald, Houghton; John MacRae, Calumet; J. B. Quick, Kearsarge; A. B. Simonson, Calumet; W. K. West, Painesdale.

HURON.—Dr. D. J. Lackie, Grindstone City.

INGHAM.—Drs. R. H. Alexander, Dansville; C. H. Brucker, Lansing; Clara M. Davis, Lansing; G. M. Dunning, Lansing; O. H. Freeland, Mason; M. L. Holm, Lansing; Samuel Osborn, Lansing; E. F. Shaw, Williamston.

IONIA.—Drs. R. W. Alton, Portland; C. C. Dellenbaugh, Portland; J. F. Pinkham, Belding.

JACKSON.—Drs. A. E. Bulson, Jackson; R. Grace Hendrick, Jackson; H. D. Hodge, Jackson; P. R. Hungerford, Concord; T. S.

Langford, Jackson; C. G. Parnall, Jackson; E. S. Peterson, Jackson; D. E. Robinson, Jackson; F. W. Rogers, Jackson; D. G. A. Seybold, Jackson; M. C. Strong, Jackson; G. E. Winter, Jackson; Nathan Williams, Jackson.

KALAMAZOO.—Drs. R. U. Adams, Kalamazoo; T. H. Ames, Kalamazoo; R. E. Balch, Kalamazoo; F. Elizabeth Barrett, Kalamazoo; W. P. Bope, Decatur; C. L. Bennett, Gobleville; E. J. Bernstein, Kalamazoo; C. E. Boys, Kalamazoo; E. J. Brady, Kalamazoo; G. T. Britton, Kalamazoo; E. D. Brooks, Kalamazoo; P. T. Butler, Kalamazoo; F. S. Coller, Vicksburg; G. D. Carnes, South Haven; Milton Chase, Otsego; L. E. Clark, Otsego; O. Clark, Kalamazoo; W. E. Collins, Kalamazoo; G. W. Cornish, Lawton; A. W. Crane, Kalamazoo; L. J. Crum, Richland; Walter den Blyker, Kalamazoo; J. G. Doeher, Kalamazoo; D. H. Eaton, Kalamazoo; Alice B. Ellsworth, Kalamazoo; Blanche N. Epler, Kalamazoo; John Fletcher, Kalamazoo; C. B. Fulkerston, Kalamazoo; F. E. Grant, Kalamazoo; G. W. Green, Dowagiac; I. E. Hamilton, Lawton; A. Hochstein, Kalamazoo; W. F. Hoyt, Paw Paw; G. F. Inch, Kalamazoo; J. B. Jackson, Kalamazoo; W. Lang, Kalamazoo; G. W. Lawton, Kalamazoo; J. Levy, Kalamazoo; N. E. Leighton, Kalamazoo; S. R. Light, Kalamazoo; C. H. McKain, Vicksburg; J. C. Maxwell, Paw Paw; J. E. Maxwell, Decatur; C. M. Myers, Dowagiac; A. I. Noble, Kalamazoo; Herman Ostrander, Kalamazoo; Della P. Pierce, Kalamazoo; H. R. Pitz, Kalamazoo; T. H. Ransom, Bloomingdale; L. G. Rhodes, South Haven; A. L. Robinson, Kalamazoo; A. H. Rockwell, Kalamazoo; L. V. Rogers, Galesburg; E. D. Sage, Kalamazoo; B. A. Shepard, Plainwell; E. Shillito, Marcellus; Malcolm Smith, Allegan; S. B. Snyder, Fulton; J. W. Sooy, Allegan; B. H. Southworth, Schoolcraft; C. M. Spencer, Kalamazoo; D. E. Squires, Dowagiac; H. O. Statler, Kalamazoo; J. D. Stewart, Hartford; L. H. Stewart, Kalamazoo; W. A. Stone, Kalamazoo; E. R. Swift, Comstock; W. S. Tomkinson, Kalamazoo; F. H. Tyler, Kalamazoo; A. L. Van Horn, Otsego; J. H. Van Ness, Allegan; O. M. Vaughan, Covert; R. F. Wafer, Hartford; R. E. Weeks, Augusta; F. J. Welsh, Kalamazoo; A. H. Wicks, Hopkins; C. A. Wilkinson, Kendall; G. F. Young, South Haven; A. S. Youngs,

Kalamazoo.

KENT.—Drs. A. J. Parker, Grand Rapids; John Brady, Grand Rapids; J. D. Brook, Grandville; A. G. Burwell, Byron Center; Burton R. Corbus, Grand Rapids; W. J. DuBois, Grand Rapids; J. B. Griswold, Grand Rapids; Collins H. Johnston, Grand Rapids; N. H. Kassabian, Coopersville; T. M. Koon, Grand Rapids; A. M. Campbell, Grand Rapids; S. L. Rozema, Grand Rapids; Frances Rutherford, Grand Rapids; R. R. Smith, Grand Rapids; R. H. Spencer, Grand Rapids; F. C. Warnshuis, Grand Rapids.

LAPEER.—Dr. J. W. Frazier, Lapeer.

LENAWEE.—Drs. C. A. Blair, Morenci; R. M. Eccles, Blissfield; P. B. Hardy, Tecumseh; G. H. Lamley, Blissfield; L. G. North, Tecumseh; I. L. Spalding, Hudson; L. S. Town, Geneva; O. W. Whitney, Jasepr.

MACOMB.—Dr. Joseph M. Croman, Mt. Clemens.

MANISTEE.—Dr. J. A. Christenson, Manistee; A. A. McLarty, Manistee.

MASON.—Dr. G. O. Switzer, Mason.

MECOSTA.—Drs. W. T. Dodge, Big Rapids; L. S. Griswold, Big Rapids.

MIDLAND.—Dr. F. A. Towsley, Midland.

MONROE.—Dr. C. T. Southworth, Monroe.

MONTCALM.—Drs. W. H. Belknap, Greenville; D. K. Black, Greenville; H. L. Bower, Greenville; F. J. Fralick, Greenville; J. O. Nelson, Howard City; James Purdon, Edmore.

MUSKEGON.—Drs. J. T. Cramer, Muskegon; J. F. Denslow, Muskegon; F. W. Garber, Muskegon; G. J. Hartman, Muskegon; Jacob Oosting, Muskegon; G. S. Williams, Muskegon.

NEWAYGO.—Dr. Chas. Long, Fremont.

OAKLAND.—Drs. E. A. Christian, Pontiac; Mason W. Gray, Pontiac.

O. M. C. O. R. O.—Dr. A. C. MacKinnon, Lewiston.

OSCEOLA.—Dr. H. L. Foster, Reed City.

OTTAWA.—Drs. T. A. Boot, Holland; D. G. Cook, Holland; Henry Kremers, Holland; J. A. Mabbs, Allegan; J. H. Mowers, Fennville; J. F. Peppler, Byron Center; H. J. Poppen, Holland; F. D. Smith, Coopersville.

ST. CLAIR.—Drs. G. S. Ney, Port Huron; C. B. Stockwell, Port Huron; Mortimer Will-

son, Port Huron.

ST. JOSEPH.—Drs. R. E. Dean, Three Rivers; D. M. Kane, Sturgis; F. C. Kinsey, Three Rivers; J. H. O'Dell, Three Rivers; F. W. Robinson, Sturgis; W. A. Rogers, Mendon; Morden Sabin, Centerville; W. H. Snyder, White Pigeon.

SANILAC.—Dr. J. A. Fraser, Lexington.

SCHOOLCRAFT.—Dr. G. M. Livingston, Manistique.

SHIAWASSEE.—Drs. J. N. Eldred, Chesaning; W. E. Ward, Owosso.

TRI-COUNTY.—Dr. A. E. Stickley, Mesick.

TUSCOLA.—Dr. M. M. Wickware, Cass City.

WASHTENAW.—Drs. J. F. Breakey, Ann Arbor; M. L. Cushman, Ann Arbor; C. G. Darling, Ann Arbor; Conrad Georg, Jr., Ann Arbor; B. H. Honeywell, Ann Arbor; J. W. Keating, Ann Arbor; G. M. Kline, Ann Arbor; I. Loree, Ann Arbor; J. G. Lynds, Ann Arbor; T. W. Paton, Ypsilanti; M. J. Rowe, Ann Arbor; G. Slocum, Ann Arbor; F. Smithies, Ann Arbor; Jeanne C. Solis, Ann Arbor; J. G. Van Zwaluwenberg, Ann Arbor; V. C. Vaughan, Ann Arbor; A. S. Warthin, Ann Arbor; J. A. Wessinger, Ann Arbor; John F. Woods, Chelsea.

WAYNE.—Drs. C. D. Aaron, Detroit; J. N. Bell, Detroit; A. P. Biddle, Detroit; A. W. Blain, Detroit; D. M. Campbell, Detroit; Flemming Carrow, Detroit; J. W. Carstens, Detroit; D. R. Clark, Detroit; Grace M. Clarke, Detroit; Guy L. Connor, Detroit; Leartus Connor, Detroit; T. B. Cooley, Detroit; James E. Davis, Detroit; W. M. Donald, Detroit; M. A. Fecheimer, Detroit; Johann Flintermann, Detroit; Hugo A. Freund, Detroit; L. W. Haynes, Detroit; P. M. Hickey, Detroit; L. J. Hirschman, Detroit; C. W. Hitchcock, Detroit; A. D. Holmes, Detroit; Florence Huson, Detroit; W. H. Hutchings, Detroit; David Inglis, Detroit; W. E. Keane, Detroit; S. J. Lachajewski, Detroit; C. T. McClintock, Detroit; Angus McLean, Detroit; R. E. Mercer, Detroit; W. H. Morley, Detroit; Anna Odell, Detroit; R. W. Odell, Detroit; W. R. Parker, Detroit; R. Parmeter, Detroit; I. L. Polozker, Detroit; F. W. Robbins, Detroit; B. R. Schenck, Detroit; G. A. Sherman, Detroit; B. R. Shurly, Detroit; E. B. Smith, Detroit; F. B. Tibbals, Detroit; H. R. Varney, Detroit; J. W.

Vaughan, Detroit; V. C. Vaughan, Jr., Detroit; F. B. Walker, Detroit; J. Watkins, Detroit; H. W. Yates, Detroit.

CHICAGO, ILL.—Drs. Archibald Church, Arthur R. Edwards, Bayard Holmes and Wm. Whitford.

Book Notices

Constipation and Intestinal Obstruction. By Samuel G. Gant, M.D., LL.D., Professor of Disease of the Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Octavo of 559 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders Company, 1909. Cloth \$6.00 net.

This work of Gant contains many ideas which are comparatively new, and a perusal of its pages will convince one of the advances which have been made in the last few years in the treatment of that ever present symptom, constipation. The reader will also be impressed with the idea that constipation, or obstipation, is much more frequently caused by mechanical means than he has been wont to consider, and that the role of drugs in its treatment is a minor one. Psychotherapy, diet, physical measures, such as massage, vibration and electricity, and surgical measures are all discussed in great detail.

Most of our standard works contain many pages on acute obstruction and on chronic obstruction when caused by the more severe and serious lesions of the abdominal cavity. Few books, on the contrary, consider the milder forms of chronic obstipation causing slight disturbances and ill-health but rarely ending in death. It is these milder forms to which Gant gives his attention.

An outline of the work is as follows:—Three chapters on anatomy and physiology; two on classification and general etiology; four on mechanical or surgical causes; four on symptomatology and diagnosis; one each on the treatment of the complications and on constipation in infants and children; 13 on treatment; 11 on the surgical treatment, in the course of which many conditions are considered, such as the various ptoses, tumors, impaction, adhesions, diverticula, hernia, intussusception, etc.

The author has invented some operations for enteroptosis which seem somewhat weird, for example, the coloplexy figured on page 490, where he advocates suspending the bowel over the

rectus muscle, and his coloplexy with invagination, in which, after fixing the bowel to the abdominal wall, a portion of the upper part of the sag is pushed into the lower and anchored there. These are heroic measures, which at first blush appear dangerous, but the author says they are not. Time will tell. Surely not many operators will care to attempt them, at least until they have been tried on the dog.

The book is one out of the ordinary. It may be said to be in advance of the times. It is optimistic. It makes one think. It is well worth while.

Diseases of the Digestive Canal (Esophagus, Stomach, Intestines). By Dr. Paul Cohnheim, Specialist in Diseases of the Stomach and Intestines in Berlin. From the second German edition, Edited and Translated by Dudley Fulton, M.D., Lecturer on Medicine, University of Southern California, Los Angeles. J. B. Lippincott Company, Philadelphia and London.

The distinctive feature of this book is, as mentioned in the translator's preface, the discussion of the subject matter purely from the clinical point of view, prominence being given throughout to the subjective symptoms of the various affections. It was Cohnheim's intention in writing the book to omit any compilations of the views of others, discussions on theory and on pathology, review of the literature and complicated laboratory technic. Each subject is taken up in a succinct manner, being attacked with a certain directness that is commendable. The translation has been well made from the second German edition, which followed two years after the book was first published. The author, Cohnheim, has been for many years assistant to Boas in Berlin, and his book may be said to be founded on experience, rather than being a compilation of the many books on the subject.

The scheme of the volume is as follows:—There are two sections, a "general," comprising 46 pages, and a "special," comprising 320 pages. In the general section, subjective symptomatology, physical examination, chemical and microscopical methods of examination, the use of the stomach tube and laboratory apparatus are described. In the special section, the various diseases are taken up in order. The translator's style is good and the book is therefore very readable. Just enough case reports are used to illustrate a point; they are never tiresome. A good feature is the "Clinical A. B. C." in which the most important symp-

toms of the various affections are given.

We believe the book will be acceptable to everyone who wishes a concise, up-to-date book on the subject, free from "padding," and extremely practical.

Confessions of a Neurasthenic. By William Taylor Marrs, M.D. Quarto, 114 pages, illustrated. F. A. Davis Company, Philadelphia.

This little book, purporting to be the autobiography of a dyed-in-the-wool neurasthenic, is written in a diverting style and is very readable. The trials and vicissitudes, imaginary and real, through which the hero passes, are narrated and suggestions implied, rather than directly pointed out. The volume is neatly and attractively printed and bound.

Diseases of the Eye. By Chas. H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Med. Dept., Columbia University, N. Y., Attending Ophthalmic Surgeon to the Mt. Sinai Hospital, New York, etc. Illustrated. Sixth edition. Pp. 391. Cloth, \$2.00. Wm. Wood & Co., New York, 1909.

This useful little Manual still retains its place as one of the best books on the eye for practitioners and students. It has been brought up to date in this latest edition, so as to give the student a comprehensive view of the whole subject without elaborating on those rarer conditions, that are the province of the specialist.

Such of the newer subjects as Transillumination, Cerebral Decompression and the Tuberculin eye reaction form excellent chapters. The colored plates and illustrations are especially good.

The Ophthalmic Year Book. Vol. VI. The Herick Book and Stationary Company, Denver, 1909.

Every ophthalmologist should feel grateful to the authors of the Year Book for placing the literature of each year in such a compact and accessible form.

In eye work, as in all other branches, one needs the lights and shadows projected by other men's views, to see things in their true light, and with a resumé of the literature so carefully abstracted before one, it reduces the probability of being afflicted with that serious condition—"contracted field."

Not the least value in this useful book is the complete index, giving quick reference both to subject and author.

County Society News

Upper Peninsula Medical Society.

The seventeenth annual meeting of the Upper Peninsula Medical Society was held at Calumet, August 3rd and 4th, under the auspices of the Houghton County Medical Society. The meeting was a highly satisfactory one, and the attendance unusually good, when it is considered that the Upper Peninsula is one of "magnificent distances."

Dr. A. W. Hornbogen, in the President's address, called attention to "The Future Treatment of Gall Stone Disease." He said that the presence of gall stones is always a surgical condition, and the time is near when gall stones will be as commonly removed as a diseased appendix.

Statistics show 12 to 15 per cent. of all persons to have gall stones, and they are more common in women than in men. In a collection of 472 cases, 50% were in teachers, clergymen and others, engaged in sedentary occupations, and 20% of the insane suffer from them.

A catarrh of the gall bladder and bile ducts, due to infection from various micro-organisms, as the bacillus coli communis, typhoid bacillus, etc., is a frequent cause of gall stones.

In 13½% of cases of cholelithiasis there is an obstruction of the common duct. Autopsy would show a greater frequency of gall stone disease where a diagnosis of peritonitis, gastric disease, liver congestion, etc., is made. One constant symptom is indigestion. This may also be due to gastric ulcer or appendicitis. In gall stone disease, there is tenderness at the tip of the right tenth rib. Murphy's method of palpation for diagnosing gall-bladder disease was described.

"Brain Abscess" was the timely topic of a paper read by Dr. H. M. Cunningham, of Marquette. As a complication of middle ear and mastoid disease, it is more frequent than is commonly suspected. He laid particular stress on the importance of healing all cases with discharging ear disease as they are otherwise dangerous.

A case was cited of a child who was treated, at the age of 1½ years, for ear disease, and was given a favorable prognosis, as the discharge had practically ceased, except a slight discharge. This child had recently died at the age of ten years from Brain Abscess.

Dr. M. D. Roberts, of Hancock, read a paper on "Thrombo-Phlebitis and Its Relation to Phlegmasia Alba Dolens," in which he gave a digest of the theories advanced as to the etiology of this complaint, and the treatment. He said that phlebitis may be regarded as a lymphangitis of the vein wall, as the inflammation extends along the lymph spaces and vessels with which the wall is richly supplied. When the inflammation extends to the arteries and thrombosis results we have phlebo-thrombosis, and as it originates from without, the condition is also called extra-vascular. Where the phlebitis results from a thrombosis, it is termed thrombo-phlebitis, also termed intra-vascular or hematogenous. In the majority of cases their differentiation is impossible.

In summarizing the theories as to the etiology of thrombo-phlebitis, he finds that the causes are:—

1. An atonic condition of the system.
2. A vitiated condition of the blood following disease, pregnancy and delivery, and an excess of fibrin in the blood during the later months of pregnancy and the puerperium.
3. A chronic inflammatory condition of the bowels that may extend to the pelvic tissues during gestation.
4. Stagnation of the blood in the extremities from pressure.
5. But the majority of cases, influenced by the previous conditions, result from septic infection.

Dr. F. J. Larned, of Greenland, read an interesting and instructive paper on "Chronic Interstitial Nephritis." He devoted considerable attention to its pathology and symptomatology, and said that this disease may be met with in three forms.

1. As the secondary stage of the large white kidney, resulting from the contraction of the increased connective tissue.
2. As a primary affection.
3. As a result of, or as some authorities claim, as a part of a general arterio-sclerosis.

Among the important signs of the disease are, the character of the urine, the physical properties being in many cases more important than the microscopic or the chemical. The quantity greatly increased, the specific gravity low. The pulse tension, and the sclerosis of the vessel wall are of value in diagnosis, as well as the hypertrophy

of the left ventricle and later the enlargement of the heart. The eyes are very commonly affected and the oculist may be the first to make a diagnosis.

The paper on "Direct Transfusion, Indications and Technique" by Dr. W. E. McNamara of Freda, was read before the County Society, and a synopsis given in a previous issue of the Journal, as was also the paper on "The Sphygmomanometer" by Dr. A. B. Mills of Calumet.

Dr. A. I. Lawbaugh of Calumet, read a paper on "Fibroid Tumors Complicating Pregnancy." He dwelt especially on their dangers in this condition, stating that they are not so dangerous when located near the fundus of the uterus as when they are located near the cervix. Here they prevent the uterus from ascending during pregnancy.

The submucous fibroid tends to interrupt pregnancy, and in the majority of cases, produces sterility. The subperitoneal fibroid may be dangerous from pressure on the peritoneum, tending to set up a localized peritonitis, accompanied by great pain. He described a case of this kind in which opiates failed to relieve the pain. A pedunculated fibroid about the size of a large orange was removed at the fourth month of pregnancy. The patient went on to full term with the relief of all symptoms.

Dr. H. J. Hornbogen of Marquette, read a paper on "Cases of Hysteria as Manifested in the Eye and Throat," in which he related interesting experiences with this condition.

A banquet was tendered to the visiting physicians at the Calumet Hotel, with 55 members present. Following the banquet, Drs. W. T. S. Gregg and G. M. Rees of Calumet, exhibited a series of Radiograms of Fractures treated at the Tamarack and the Calumet and Hecla Hospitals. They showed radiograms of fractures during various stages of the healing process. They were very interesting and instructive and were highly appreciated by the society.

The following officers were elected for 1910:—

President, Dr. E. T. Abrams, Dollar Bay; 1st Vice-President, Dr. Robert B. Bennie, Sault Ste. Marie; 2nd Vice-President, Dr. John MacRae, Calumet.

On behalf of the Chippewa County Medical Society, Dr. C. J. Ennis extended an invitation to hold its next meeting at Sault Ste. Marie. This was enthusiastically accepted and the society will hold its 1910 meeting in that city.

After the meeting was adjourned, the visiting members were taken in automobiles to various places of interest in the county.

JOHN MACRAE, Sec'y.

Chippewa.

The Chippewa County Medical Society held its first fall meeting at Munoskong Club as guests of Dr. J. A. Cameron of Pickford. We went down in Dr. McCandless' launch and had a very enjoyable time, being entertained royally.

Two papers were read, one by Dr. Yale on "Diphtheria," and the other by Dr. Willison on "The Dispensing of Medicines." They were very interesting papers, and the society is going to take up the matter of "Counter prescribing by Druggists" at some future meeting.

The society elected Dr. A. J. Murchison of Charlottetown, Prince Edward Island, who is visiting here, an honorary member.

The following members from the Soo were present:—Drs. Ennis, Dickison, F. Townsend, McCandless, Yale, Webster, Willison, Winslow, McDonald, Griffin, Fournier, Lyon, Murchison, Gostanian, and J. A. Cameron, and Walz of Pickford.

JAMES GOSTANIAN, Sec'y.

Eaton.

Considering the weather, the attendance and interest in the second quarterly meeting of the Eaton County Medical Society, held in Charlotte, July 29, 1909, were very good. The time was mostly taken up by the discussion of and appointment of committees for the meeting of the Third Councilor District. Present indications are that the meeting will be a pronounced success. The time has not been definitely decided upon, but it will probably be in the second or third week of October. Charlotte has been chosen as the meeting place, being the most accessible by rail. All residents of the Third Councilor District will be notified in due time to make arrangements for leaving home one day.

Eaton County Medical Society is sponsor for the success of the meeting.

A. H. BURLESON, Sec'y.

Houghton.

The July meeting of the Houghton County

Medical Society was held at the Hotel Scott, Hancock, with twenty physicians, over one-third of the membership present.

Dr. G. M. Rees reported "Some Interesting Cases of Appendicitis," five cases presenting severe gastric symptoms, gastric tenderness, pain and vomiting, coming on at irregular intervals and pointing to gastric ulcer. In the first case the failure to give relief by local gastric treatment and rectal feeding, suggested some surgical lesion. The patient was a sufferer from frequent attacks of illness, entailing the loss of a large percentage of his time, and was ready to submit to any procedure that gave any promise of relief. An operation for appendicitis was performed, and although there were no local signs in the region of the appendix, it was found extensively diseased, and the operation was followed by complete recovery.

The other four cases were of the same character, presenting gastric symptoms only, with no local signs of diseased appendix, yet in every case, operation revealed a diseased appendix, with extensive adhesions in some. All terminated in complete recovery. In the discussion Dr. Lawbaugh referred to an article by Dr. Carstens, written some years ago, describing such cases.

Dr. M. D. Roberts of Hancock, reported a "Case of Phlebitis Following Labor," in a primapara aged 25 years, who had a normal delivery, with no complication except a slight perineal tear, which was repaired. On the third day the temperature was 101°, pulse 130. Pain in leg on fifth day. On the ninth day, a currerment was done, but there were no clots or membrane. On the 15th day, a marked swelling of the leg appeared, requiring elevation.

Dr. R. V. Armimen reported a case which he had in the same house eight months before, with labor normal and no vaginal examination made. The etiology and pathology of this complication is an interesting one and Dr. Roberts will present a paper on this subject at a future meeting.

Dr. N. D. MacDonald of Hancock, reported "A Case of Abdominal Hematoma Following Operation for the Radical Cure of Inguinal Hernia." He said that hemorrhage after hernia operations is an accident which occasionally follows our efforts at a radical cure. In his experience he has had three cases with quite severe hemorrhage. In two of these the bleeding was from the cord and canal, and was due to blood dyscrasia. The

last case here reported was due either to a faulty ligation, or the puncture of a vessel at the neck of the sac. The operation was performed May 22, 1909, for left inguinal hernia. Catgut was used for the ligation of the sac, and kangaroo tendon for the closure of the canal.

The nurse reported the following morning that the patient's pulse grew suddenly worse during the night following the operation, but there was no oozing from the wound, and aside from abdominal pain and some rigidity, his condition was good, with pulse 100, temperature 99°. His convalescence was uneventful with primary union and recovery in two weeks. The third week he came to the office complaining of abdominal pain and constipation. An examination of the abdomen revealed a well defined tumor about the size of a child's head, occupying the right quadrant. On account of its location on the opposite side from the hernia, hematoma was not suspected. An exploratory incision was made June 22, a hematoma found with contents of a tarry consistency and on a fair way to recovery by absorption. The cavity was emptied and sponged as dry as practicable and at present there is no evidence of recurrence.

Dr. W. S. Jackson, of Houghton, read a paper on "The Tonsil and Its Relation to Disease," in which he claimed that this structure does not receive the attention that its importance demands, while physiologically its scientific interest lies in its protective function to the organism. It acts as a filter to rid the lymph of micro-organisms and foreign bodies.

While the tonsil has a protective action, it is especially liable to inflammation in consequence of infection and thus is the source of general infection. Instead of being protective it is the nidus for the growth and distribution of organisms and their poisonous products into the system, and thus the portal of entry for many grave and fatal general infections.

The exanthemata probably enter the system in this way: Acute articular rheumatism and diseases associated with it, as endocarditis and chorea, often enter the system through a diseased tonsil. A bacteriologic and histologic examination of the tonsil would often shed light on fevers of uncertain origin.

Of the two types of diseased tonsil, the hypertrophic and the atrophic, the latter is often unsuspected as a cause of ill-health in children and even adults. In a recent report in the *Johns*

Hopkins Bulletin of the removal of 200 atrophic tonsils, 196 were found to be so diseased as to give rise to ill health. Their removal resulted in improved health to the patient.

Dr. W. K. West of Painesdale, gave a report on "Points Gleaned From the Last Meeting of the American Medical Association." He said the meeting was scientifically interesting and valuable. To see and hear so many of the leading men of the profession was both interesting and stimulating. He referred to a number of papers read in the surgical section, particularly to the paper by Beck on the use of bismuth paste in empyema and lung abscess. In the discussion, Murphy stated that he uses 2% formalin in glycerine. The paper by Arbuthnot Lane on the open treatment of fractures was also referred to.

JOHN MACRAE, Sec'y.

Kent.

The Kent County Medical Society resumed its regular meetings on September 29th. The paper of the evening was read by Dr. Earl Bigham, subject "The Prevention and Treatment of Post-partum Hemorrhage." The program committee has already completed arrangements with a number of out of town men who will appear before the society this coming winter. The Society Bulletin is again being issued. The Secretary will be glad to send it to any County Secretary in the State upon receipt of stamps to cover postage.

F. C. WARNSHUIS, Sec'y.

Wayne.

The Wayne County Society resumed its meetings for the year on September 30th. The secretary read his report showing a healthy condition of the membership roll and of the finances. Dr. A. H. Bigg, retiring vice-president, in the absence of the retiring President, Dr. W. P. Manton, read the latter's address. Dr. A. D. Holmes, President for 1909-1910, was inaugurated and outlined his policy for the coming year.

The Medical Section met on September 15th. A lively discussion on the ever recurring problem of purer milk for Detroit took place. Dr. R. S. Rowland opened the program with remarks. He spoke of the importance of the subject from

different viewpoints and especially emphasized the great need of a clinical milk, as distinct from one intended for general domestic purposes. The discussion was continued by Drs. Cooley, Delbridge, Kiefer, Parmalee and Safford.

The program of the meeting of the Surgical Section for September 27th, included the Report of a Case of Ureteral Calculus, by Dr. F. B. Walker, and a paper on "The Surgical Treatment of Pruritus Ani," by Dr. L. J. Hirschman.

Abstract:—Pruritus Ani is such an important and distressing symptom of many rectal diseases as well as of constitutional, parasitic, and dermatological diseases, that it is considered as if it were a disease entity itself. After discussing etiology and pathology of local rectal diseases exhibiting pruritus as their principal symptom, and describing the appearance of the anus in the patient suffering from this condition, the author took up the surgical measures directed particularly to the relief of the itching. He emphasized the extreme importance of a thorough examination of the rectum and anus in all cases presenting pruritus as a predominating symptom.

In these cases of pruritus ani in which the circum-anal integument is hypertrophied and thrown into heavy folds and the sulci between are irritated, fissured, and discharging, the removal of these folds under local anesthesia was advised; and the technique described. Where the pruritus is most persistent at the posterior anal commissure, and ulcer of the anal canal, or fissure is present, the removal of a kite-shaped piece of skin and mucous membrane was advised, and the technic for the operation under local anesthesia detailed.

The fact that many cases of pruritus are caused by the irritating discharge poured forth from the diseased Morgagnian crypts, a sub-mucous fittula opening into these crypts, and hypertrophied anal papillae, was brought forth, and the technic for the surgical relief of the various conditions described in detail.

For these inveterate cases which have resisted all other forms of treatment, Ball's operation and Krouse's modification of the same were advised. The author gave his technic for these procedures and described his method of operating under local anesthesia. In this operation all the sensory nerve twigs supplying the affected area of circum-anal integument are severed, and the pruritus is immediately and permanently relieved.

**PROCEEDINGS OF THE FORTY-FOURTH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY, HELD AT KALAMAZOO,
SEPTEMBER 15 AND 16, 1909.**

Council.

The first session of the Council of the Michigan State Medical Society was called to order by Chairman Burr at 3:30 P.M., Tuesday, September 14th, 1909, in the Academy of Medicine Rooms, Kalamazoo.

Present: Chairman Burr, Councilors Hirschman, Bulson, Rockwell, Spencer, Ennis, Haughey; President Lawbaugh, and State Secretary Schenck.

The minutes of the last meeting were read and approved.

The Secretary reported that soon after the January meeting of the Council, Dr. H. J. Hartz wrote desiring that a ballot of the Council be taken in order to obtain an opinion on the New York Tuberculosis Bill; that such ballot had been taken by mail and a copy of the replies of the Councilors forwarded to Drs. Hartz and Sawyer.

Dr. Rockwell moved that Dr. Willis S. Anderson of Detroit be declared unanimously elected as Treasurer of the State Society to fill the unexpired term of Dr. George W. Moran, and that the Secretary cast the ballot of the Council for his election. Supported by Dr. Hirschman and carried. The Secretary cast the unanimous ballot of the seven members present for Dr. Willis S. Anderson of Detroit, for Treasurer for the unexpired term, and he was declared elected.

The Report of the Council to the House of Delegates was read by Chairman Burr and on motion of Dr. Spencer, supported by Dr. Rockwell, the report was adopted as read.

Dr. Bulson moved the adoption of the following resolution:

RESOLVED, That the Council looks with extreme disfavor on action on the part of any County Society contemplating the expulsion from membership because of consultation with or affiliation with some member of the profession legally qualified to practice medicine, but not a member of the County Society.

Dr. Hirschman supported the motion. Carried.

Dr. Spencer asked permission to present to the Council Mr. Arnold, the father of a bill

passed by the legislatures of North Dakota and Minnesota to purify the advertising matters in Newspapers.

Mr. Arnold addressed the Council telling briefly of his methods and the results obtained, after which the Council adjourned.

The second session of the Council was called to order in the Rooms of the Academy of Medicine at 2:00 P. M., Wednesday, September 15, 1909 but as nothing had been referred from the House of Delegates or General Session, an adjournment was taken without transacting any business.

The third session of the Council was called to order by Vice-Chairman Dodge on the morning of September 16, 1909, in the Y. M. C. A. Rooms.

Present: Councilors Dodge, Bulson, Spencer, Willson, Rockwell, Ennis, Biddle, Haughey, State Secretary Schenck and President Elect J. H. Cartstens.

The minutes of the last two sessions were read and approved.

The Chairman introduced Dr. A. P. Biddle of Detroit, who had been elected Councilor for the First District, and also announced that Dr. A. M. Hume of Owosso had been elected Councilor for the Sixth District.

Dr. W. T. Dodge was elected Chairman of the Council and Dr. W. H. Haughey was re-elected Secretary of the Council.

Dr. Spencer moved that the usual compensation of \$50.00 to the Secretary and \$50.00 to the Stenographer of the Council be granted for the ensuing year. Supported by Dr. Willson and carried.

The Chair announced that inasmuch as a system of Medical Defense had been adopted by the State Society it entailed upon the Council the duty of electing an Executive Board of the Medico-Legal Committee, this Board to consist of five members.

The following nominations were made:

Dr. F. B. Tibbals, Detroit, for 5 years.

Dr. C. B. Stockwell, Port Huron, for 4 years.

Dr. E. C. Taylor, Jackson, for 3 years.

Dr. Chas. W. Hitchcock, Detroit, for 2 years.

Dr. Johann Flinterman, Detroit, for 1 year,

Moved by Dr. Rockwell that the nominees be declared unanimously elected, and that the Secretary be instructed to cast the ballot of the Council for their election. Supported by Dr. Willson and carried. The Secretary cast the unanimous ballot of the Council for the above-named gentlemen as members of the Executive Board of the Medico-Legal Committee, and they were declared elected.

Dr. Wilson moved that Dr. Tibbals be made Chairman of the Executive Board. Supported and carried.

Chairman Dodge appointed the following committees:

Committee on Finance.

- B. H. McMullen, Cadillac.
- A. L. Seeley, Mayville.
- C. H. Baker, Bay City.

Committee on Publication.

- A. P. Biddle, Detroit.
- M. Willson, Port Huron.
- R. H. Spencer, Grand Rapids.
- A. M. Hume, Owosso.

Committee on County Societies.

- W. H. Haughey, Battle Creek.
- A. E. Bulson, Jackson.
- A. H. Rockwell, Kalamazoo.
- E. J. Ennis, Sault Ste. Marie.

Moved by Dr. Willson that the Secretary be empowered to expend the necessary amount to entertain the County Secretaries at their next meeting, not to exceed \$75.00. Supported by Dr. Biddle and carried.

Dr. Willson moved that the Council recommend to the County Societies that where possible they pay the expenses of the Secretaries to the Annual Meeting of County Secretaries. Supported by Dr. Rockwell and carried.

Dr. Bulson asked for the experience of the Councilors in holding District Meetings, stating that in the Second District these had not been as successful as could be wished. Responses were made by all Councilors present and it seemed to be the general belief that these meetings were more successful if not held too often, one in two or three years bringing the best results.

Dr. Carstens, the President-Elect, was introduced to the Council by Chairman Dodge, after which, there being no other business, the Council adjourned.

W. H. HAUGHEY,
Secretary of the Council.

House of Delegates.

The first session of the House of Delegates of the Michigan State Medical Society for 1909, was called to order by President Lawbaugh, in the Y. M. C. A. Auditorium, at 8:30 P. M., Tuesday, September 14, 1909.

Roll call was dispensed with.

The minutes of the last meeting were read (in abstract) by Secretary Schenck and approved.

The Report of the Council was read by Dr. C. B. Burr, Genesee, Chairman, and on motion of Dr. Biddle, Wayne, was accepted and referred to the Business Committee to be created later. See page 491.

Report of Committee on Legislation and Public Policy and on the work of the National Legislative Council was read by Dr. W. H. Sawyer, Hillsdale, Chairman, and on motion was accepted and placed on file. See page 494.

Report of the Committee on Medical Defense was read by Dr. Frank B. Tibbals, Wayne, Chairman. See page 495.

The various amendments to the By-Laws incorporated in this report were discussed at length by Drs. Breakey, Niles, Rogers, Burr, DuBois, Spaulding, Biddle, Langford and Dodge, and were accepted, section by section, as read by Dr. Tibbals.

Moved by Dr. Robbins, Wayne, that the amendments to the By-Laws as accepted be laid upon the table until Wednesday morning. Dr. Breakey, Washtenaw, moved as an amendment that final action be deferred until Thursday morning. Amendment accepted. The motion as amended was supported and carried.

Under miscellaneous business, nominations for membership on the Committee on Nominations were made as follows:

- Dr. F. B. Tibbals, Wayne.
- Dr. W. J. DuBois, Kent.
- Dr. L. S. Griswold, Mecosta.
- Dr. C. T. Southworth, Monroe.
- Dr. N. S. MacDonald, Houghton.

Upon the withdrawal of Dr. Tibbals the name of Dr. C. B. Stockwell, St. Clair, was placed in nomination.

Moved by Dr. Holmes, Wayne, that the Secretary cast the ballot of the House of Delegates for the five members as nominated. Carried.

Secretary cast the ballot and the Committee was declared elected.

The President appointed the following Business Committee:

Dr. Livingston, Schoolcraft.
 Dr. Wessenger, Washtenaw.
 Dr. Kinsey, St. Joseph.
 Dr. Fraser, Sanilac.
 Dr. Holmes, Wayne.

The Secretary read the following amendment to Section 3, of Chapter III. of the By-Laws which was laid over from the last meeting of the House of Delegates:

Such amendment adds to Section 3 the following: "No paper shall be read by title nor read by any other person than its author, except as a result of sickness of author or by unanimous vote of the section to which it belongs."

Dr. Southworth, Monroe, moved the adoption of the amendment as read. Supported and carried.

By Dr. Robbins: Resolved: That a committee of five be appointed by the President, tomorrow, to report at the Annual Meeting of 1910 as to the relation of the Medical Department of the University of Michigan to the Medical Profession of the State.

The resolution was supported and adopted.

Dr. Christian, Oakland, presented the following preamble and resolution:

At the regular meeting of the Oakland County Medical Society held September 2, 1909, in Royal Oak, it was moved, supported and carried that the delegate of the society be directed to secure the passage by the House of Delegates at the Kalamazoo meeting of the Michigan State Medical Society of the following:

Whereas, the increasing prevalence in Michigan of lodge practice is a serious menace to the welfare of the profession of the state and an obstacle to professional organization, therefore;

Resolved, that the House of Delegates of the Michigan State Medical Society recommends that the county societies use such measures to prevent, abolish or modify this objectionable practice as varying local conditions require.

Dr. Christian asked that this matter be laid upon the table until the next session of the House.

Dr. Shurly, Wayne, offered the following amendment to Section 1, Chap. VII., By-Laws, which has to do with the duties of officers and which would read as follows:

4th line, after the word "for" referring to the duties of the President there should be inserted the following:

"shall fill all vacancies not otherwise provided for occurring by reason of death, disability, res-

ignation or removal, of any officer, councilor or member of any committee occurring during the fiscal year of the Society."

The proposed amendment was laid over under the rules for one day.

On motion the House of Delegates adjourned to meet Wednesday morning, at 8:30 A. M.

Second Session.

The second session of the House of Delegates was called to order by President Lawbaugh at 9:00 A. M. Wednesday, September 15th, in the Y. M. C. A. Auditorium.

The minutes of the previous session were read by Secretary Schenck and approved.

The following amendment to By-Laws, which had been laid over under the rules was read by the Secretary:

Amendment to Section 1, Chapter VIII., By-Laws, on the fourth line after the word "for" insert the following:

"shall fill all vacancies not otherwise provided for occurring by reason of death, disability, or removal of any officer, councilor, or member of any committee, occurring during the fiscal year of the Society."

Moved by Dr. Biddle, Wayne, that the amendment to the By-Laws be adopted. Supported and carried.

The Report of the Committee on the Study and Prevention of Tuberculosis, Dr. H. J. Hartz, Wayne, Chairman, was read by the Secretary. See page 498.

Moved by Dr. Biddle, Wayne, that the report be accepted. Supported and carried.

The Report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children throughout the State, was read by Dr. Walter R. Parker, Wayne, Chairman, and on motion was accepted and placed on file. See page 497.

Moved by Dr. Connor, Wayne, That this Committee be requested to join with the Councilors in having each County in the State make arrangements to spend one session in the discussion of this topic, and make such arrangements as the particular conditions and environment of that County may require. Supported and carried.

Dr. Christian, Oakland, moved that the following preamble and resolution be taken from the table:

Whereas, the increasing prevalence in Michigan of lodge practice is a serious menace to the welfare of the profession of the State and an obstacle to professional organization, therefore;

Resolved, that the House of Delegates of the Michigan State Medical Society recommends that the county societies use such measures to prevent, abolish or modify this objectionable practice as varying local conditions require.

Motion supported and carried.

Moved by Dr. Christian, Oakland, that the above preamble and resolution be adopted. Supported and carried.

Dr. Livingston, Schoolcraft, Chairman of the Business Committee, moved the adoption of the following resolution:

Whereas, it has pleased Almighty God to remove from the ranks of our society, Dr. George W. Moran, a faithful and consistent officer and member, and an eminent practitioner of our art.

Therefore be it Resolved, that in the death of Dr. Moran the Michigan State Medical Society has sustained an irreparable loss and that the sympathy of this organization be and is hereby extended to his family and friends.

Be it further Resolved, that these resolutions be spread upon the minutes of this society and a copy of the same be transmitted to the family of the deceased.

Resolution supported and carried.

The following recommendations of the Business Committee were adopted:

Your committee desires to report farther that it greatly deplores the falling off in membership in several of the counties as reported by our Secretary and would recommend that the Council put forth renewed effort to overcome this defection. In accordance with the suggestion of our Secretary your committee desires also to recommend that the meeting of the County Secretaries be held concurrently with that of the Council. Your committee also recommends that the various county societies put forth greater effort toward the furnishing of items of interest for publication in our State Journal.

Your committee further recommends that the suggestion of the Chairman of the Council relative to the appointment of a committee to secure legislation making it a misdemeanor to use the term "certified milk" except by a regularly organized medical milk commission be concurred in.

Dr. Livingston, Schoolcraft, moved that the

President of the Society appoint a committee of three to draft suitable resolutions in connection with the removal of Councilor George Dock from this State. Supported and carried.

The President appointed Drs. Wm. F. Breakey, Washington; Dr. A. E. Bulson, Jackson, and Leartus Connor, Wayne.

On motion the House of Delegates adjourned to Thursday morning.

Third Session.

The third session of the House of Delegates was called to order in the Y. M. C. A. auditorium, Kalamazoo, by the Secretary, pending the arrival of the President who was delayed.

On motion, Dr. H. B. Garner, Grand Traverse, was chosen Chairman.

The minutes of the previous session were read by the Secretary and approved.

Dr. Livingston, Schoolcraft, Chairman of the Business Committee, made the following report:

"Your committee begs leave to recommend the following resolutions:

Resolved, that the Council of the Michigan State Medical Society be and is hereby instructed to make arrangements whereby each and every component County Medical Society shall hold at least one meeting during the coming year, which shall be devoted wholly to the consideration of the subject of Tuberculosis."

Dr. Tibbals, Wayne, moved the adoption of the above resolution. Supported and carried.

"Your committee further recommends as follows: That a committee of five be appointed by the President to work in conjunction with the Committee on Legislation and Public Policy to secure such legislation as may be necessary to protect the term 'certified milk.'

Moved by Dr. Robbins, Wayne, that the resolution be adopted. Supported and carried.

Dr. Breakey, Washtenaw, Chairman of the Special Committee to draft suitable resolutions in connection with the removal from our state of Dr. George Dock, reported as follows:

"Your committee to whom was referred the duty of expressing the regret of this Society at its loss by the removal from the State of Dr. George Dock, so long an able and active member of the society, respectfully report that while we miss his cheerful presence, his enthusiastic interest and vigorous aid in all scientific work of the Society and the welfare of the profession,

we are glad to feel that we have the fruits of his work while with us, and that we endorse the very deserved estimate of his service so well stated by the Chairman of the Council in his address to the society.

His devotion to rational medicine is not limited by states or countries and we feel assured we can still count on his interest and aid.

We congratulate Tulane University which has secured his valuable services and our best wishes go with him for his continued prosperity in his new field of work.

We recommend that he be made an honorary member of this society and a copy of these resolutions be sent to him.

Signed: W. F. BREAKY,
A. E. BULSON,
LEARCUS CONNOR."

Dr. DuBois, Kent, moved that the resolutions be adopted. Supported and carried.

Dr. Southworth, Monroe, for the Committee on Nominations, made the following report:

"Your Committee on Nominations begs to make the following report:

Place of Meeting for 1910—Bay City.

Time—September.

First Vice-President—Virgil Tupper, Bay.

Second Vice-President—F. H. Webster, Chippewa.

Third Vice-President—J. F. Breakey, Washitawenaw.

Fourth Vice-President—R. M. Eccles, Lenawee.
Councilor 1st District—A. P. Biddle, Detroit.

Councilor 3rd District—W. H. Haughey, Battle Creek.

Councilor 6th District—A. M. Hume, Owosso.
Councilor 11th District—W. T. Dodge, Big Rapids.

Delegate to the A. M. A.—E. T. Abrams, Dolar Bay.

Alternate Delegate to A. M. A.—R. E. Balch, Kalamazoo.

Signed: W. J. DU BOIS,
C. T. SOUTHWORTH,
N. S. MACDONALD,
L. S. GRISWOLD."

Dr. Robbins, Wayne, moved that the report of the committee be adopted as read. Supported and carried.

Moved by Dr. Hitchcock, Wayne, that the amendments to the By-Laws in relation to Medical Defense be taken from the table. Supported and carried.

Moved by Dr. Rockwell, Kalamazoo, that the amendments to the By-Laws as presented by the Special Committee on Medical Defense be adopted. Supported. After some discussion the motion was withdrawn.

Moved by Dr. Dodge, Big Rapids, that the House of Delegates is in favor of the adoption of a system of Medical Defense by the Michigan State Medical Society. Supported.

The subject of Medical Defense and its relation to the State Society was discussed at length by Drs. Rogers, Jackson; Learcus Connor, Wayne; Bell, Wayne; Langford, Jackson; Dodge, Mecosta; Rockwell, Kalamazoo, and Bayard Holmes, Chicago.

Upon a rising vote the motion was declared unanimously carried.

Moved by Dr. Dunning, Ingham, that final action on this question be laid over until a year from now. Supported by Dr. Rogers, Jackson. The motion was lost.

Moved by Dr. Tibbals, Wayne, that the amendments to the By-Laws as submitted by the Special Committee on Medical Defense be adopted. Supported by several.

The following are the amendments as introduced at the first session of the House of Delegates, by Dr. Tibbals, Wayne, Chairman of the Committee on Medical Defense, and Delegate from Wayne County.

Chapter VII., Sec. 3, third line, after "funds," insert "except the Medico-Legal Fund."

Chapter VII., Sec. 4, line 10, after "Treasurer" insert "and the Chairman of the Medico-Legal Committee."

Chapter VIII., Sec. 6, line 27, amend to read, "It shall be the further duty of the Council to hold the official bond of the Treasurer and the Chairman of the Medico-Legal Committee for the faithful execution of their offices, annually to audit and authenticate their accounts." etc.

Chapter VIII., Sec. 6, last sentence, after "Treasurer," insert "or the Chairman of the Medico-Legal Committee."

Chapter IX., Sec. 1, add "A Medico-Legal Committee."

Chapter IX., add as subsequent sections:

Sec. 6. The Medico-Legal Committee shall consist of an Executive Board of five, to be elected by the Council, and also one member from each component society not otherwise represented, to be elected by the component societies. The Executive Board shall be elected for one, two,

three, four and five years respectively, and thereafter one member shall be elected each year to hold office for five years. All other members of the Committee shall be elected for one year.

The election of members of the Executive Board shall be made by the Council at the time of the annual session of the society, and that of other members of the committee shall be made by each component society at its first meeting after September 1, the term of office of all members of the Committee beginning on the first day of January following.

No County Society voting not to participate in the privileges of this bureau shall be entitled to representation on the Committee.

Sec. 7. The Council, at the same meeting, shall elect one of the five members of the Executive Board as Chairman, whose term of office shall be for one year from the first of January following. He shall act as Chairman of the Executive Board and of the entire Committee, and shall be the custodian of the Medico-Legal Fund. No disbursement shall be made from the Medico-Legal Fund without the signatures of the Chairman of the Executive Board and the Chairman of the Council or the Secretary of the State Society.

In order that the Chairman may be able to give the requisite amount of time to his duties, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council.

Sec. 8. The Executive Board shall report to the Council at its annual meeting, giving full particulars of the work of the Committee, and a detailed statement of income and disbursements.

It shall engage by the year a competent firm as general attorneys, and fix their compensation. Their duties shall be to compile from all available sources court decisions fixing the law of liability of physicians for civil malpractice, such compilations to be the property of the Society, and also to defend any member of the Society not in arrears, when sued or threatened with suit for civil malpractice, or to supervise such defense through a local attorney.

Sec. 9. The Medico-Legal Fund, consisting of an initial assessment of one and one-half dollars from each present and future member of the Society, and a subsequent assessment of one dollar for each year after the first, shall be collected by the State Secretary, and paid at least monthly as collected to the Chairman of the Medico-Legal Committee.

In the event that any County Society, by a majority vote of all its members, shall elect not to avail itself of the privileges of the Medico-Legal Fund, then this special assessment shall not be collected or accepted from any member of that component society and no member of such society shall be entitled to any of the privileges of the Medico-Legal Bureau.

Sec. 10. Members in arrears after June 1st shall not be entitled to defense for any suit, the cause of action of which arose while in arrears, and any member sued or threatened before joining the society or before the organization of the Medico-Legal Fund must pay the actual cost of defense in such suit.

Sec. 11. With the exception above noted, the Medico-Legal Committee shall undertake the defense of any member of the Society sued or threatened with suit for civil malpractice, regardless of the time when the alleged cause of action arose, and shall also defend any action for civil malpractice against the estate of a deceased member, provided he or she, while living, has conformed to the foregoing requirements.

Sec. 12. In the event that during any one year the demands upon the Medico-Legal Fund be large enough to exhaust it, the Council shall be authorized to loan sufficient funds from the treasury of the State Society to meet the contingency.

Sec. 13. It shall be the duty of any member of the Society threatened with action for civil malpractice to confer at once with the member of the Medico-Legal Committee from his component society and with his aid prepare the case and forward the same to the Chairman of the Medico-Legal Committee. He must agree not to settle or compromise his case without the consent of the Executive Board and the General Attorneys. He may recommend, in conjunction with the local member of the Medico-Legal Committee, the best available local attorney, but the authority to engage the services of local attorneys shall lie with the Executive Board and their General Attorneys. The local attorney chosen shall enter the appearance of his client and undertake his defense under the supervision of the General Attorneys.

Sec. 14. All attorneys' fees and court costs will be paid from the Medico-Legal Fund, and defense carried through all Michigan courts, but under no circumstances shall this fund be liable for any damages declared against an unsuccessful litigant.

Chapter XI, Sec. 1, first sentence, after "Societies" insert "exclusive of the special assessment for the Medico-Legal Fund."

The forgoing amendments to the By-Laws were adopted by a rising vote. Yeas, 27; nos, 2.

The House of Delegates then adjourned *sine die*.

B. R. SCHENCK,
Secretary.

Society in General Session.

The forty-fourth Annual Meeting of the Michigan State Medical Society was called to order in the Congregational Church, Kalamazoo, at 10:30 a. m., Wednesday, September 15th, by the President, A. I. Lawbaugh.

The meeting was opened by prayer by the Rev. Dr. Gelston.

We thank Thee, Our Father, that Thou has created for us a life that is intelligible, if we are patient and painstaking in ourselves. We thank Thee that though we are surrounded by mysteries that we do not understand yet we may hope for the development of human consciousness to correspond. We believe in Thee because our reasoning cannot come to any end without the assumption of an Infinite Mind, producing an order that is more and more yielding to the intelligence and inquiry of human experience. We thank Thee that Thou has created for us a system of normality and what seems to us abnormal is found to be but a contradiction of that which is lawful. Teach us more than we have yet learned of the way out, that brings us not only the joy and the power of this physical life, but that larger and completer felicity which belongs to the spiritual consciousness in a healthy and normal body.

We thank Thee for what Thou hast done in medical research, through human instrumentality, for the suppression of pestilence and disease, for the learning of science and all that belongs to nature. We thank Thee that this knowledge has accumulated from counsel Thou has given. We pray that Thou wilt direct the deliberations of this body and that our thoughts may be guided by Thy infinite wisdom, and above all give us to realize the fact which has characterized this profession at all times, that we are servants and toiling in

behalf of the suffering and the helpless. This is indeed the great inspiration of our lives, the compensation of our toil and the allurement of our attraction for time to come. We ask that Thou wilt bless the institutions that have been established by this profession for the benefit of humanity, and for the careful, painstaking investigation into the causes leading to results. And we pray so far as these, Thy servants, are going out into the world to administer the scientific knowledge so acquired, they may keep in touch with all new thought, with all larger and more inspirational movements leading to still higher results, that we may all realize that while the mysteries of life are full of bewilderment to those who do not understand them, they are full of compensation to those who will search out the reason of effects, and that our labor shall not be in vain but the time shall surely come when disease in all of its contagious forms shall be driven from the face of the earth, and when God Almighty's children shall learn that the way of happiness is the way of obedience and knowledge. We ask it in the name of the great Man of the ages who went about doing good, the great Physician of human bodies and souls. Amen.

In the absence of Hon. Frank H. Milham, Mayor of Kalamazoo, the Address of Welcome was given by Mr. W. L. Fitzgerald, city attorney.

The Address of Welcome on behalf of the Medical Profession was given by Dr. A. I. Noble, superintendent of the Michigan Asylum.

The report from the House of Delegates was read by State Secretary Schenck.

The Address of the President, Dr. A. I. Lawbaugh, Calumet, Subject, "The Physician, His Duties and Relations to the Profession and the Public," was read and elicited much applause.

Moved by Dr. Vaughan, Ann Arbor, that the President's Address be referred to the proper committee. Supported by Dr. Biddle, Detroit, and carried.

Under the head of miscellaneous business, Dr. Leartus Connor, Detroit, presented a paper entitled "Simple Refraction for Family Physicians; Its Promotion During 1908-09."

Moved by Dr. Burr, Flint, that the above paper be referred to the Business Committee.

Supported and carried.

Dr. C. B. Burr, Flint, offered the following resolution and moved its adoption.

Resolved, That the Michigan State Medical Society, in Annual Session at Kalamazoo, extends to Dr. Frederick A. Cook its heartiest congratulations on his dignified bearing in a trying situation.

Resolved, That nothing thus far printed or expressed which has come to the knowledge of the members of the Society, has impaired the confidence which Dr. Cook's utterances have inspired that he has attained a much coveted goal, or their faith that additional luster and honor will come to him as the details of his tremendous achievement are better made known to the public.

Resolved, That the Secretary be instructed to transmit to Dr. Cook a telegram embodying these resolutions.

The motion to adopt the above resolutions was supported and carried unanimously.

Dr. Biddle, Detroit, offered the following resolution:

Resolved, That the Michigan State Medical Society approves the action of the Michigan State Board of Registration in "requiring of applicants for license a demonstration of their fitness to do practical refraction" and congratulates the Board on being a leader in this movement for the simultaneous betterment of both profession and people.

Dr. Biddle moved the adoption of the above resolution. Carried.

Dr. Carstens suggested that in the future a special medical stenographer be employed for each section.

Dr. C. B. Burr, of Flint, and Dr. J. H. Carstens, of Detroit, were nominated for President.

There being some question as to the eligibility of Dr. Burr, on account of the fact that his term of office on the Council did not expire until September 16th, at his request, his name was withdrawn.

The general session then adjourned.

At the evening session in the Congregational Church, Wednesday, September 15, 1909, the Address by the Guest of Honor, Dr. Archibald Church, Professor of Nervous and Mental Diseases, Northwestern University, Chicago, Subject—"Mind Cures in General and

the Emmanuel Movement in Particular," was well attended and on motion of Dr. Bulson, Jackson, a vote of thanks from the members of the Michigan State Medical Society was extended to Dr. Church for the very interesting address presented.

The third session of the Society was called to order by President Lawbaugh in the Congregational Church, at 11:30 a. m., Wednesday, September 16th.

A report from the House of Delegates by Secretary Schenck was read.

Dr. Hirschman, Detroit, moved that we extend our hearty thanks to the Profession of Kalamazoo, both City and County, for their generous entertainment and the splendid arrangements made for the meeting.

Dr. Abrams, Dollar Bay, moved as an amendment, that we also extend a vote of thanks to the citizens of Kalamazoo who have contributed not a little to our entertainment; also to the Michigan State Telephone Company, who have placed their lines at the disposal of the members; also to the Upjohn Chemical Company, and particularly to the press.

Amendment accepted and motion as amended supported and carried.

Dr. Dubois, Grand Rapids, Chairman of the Committee on Nominations announced that Dr. John H. Carstens, Detroit, had been elected President for the ensuing year.

Dr. Carstens was declared elected and the President appointed Drs. Abrams and Ostrander to escort him to the Chair.

The President-Elect expressed his appreciation as follows:

"It is indeed an honor to have been elected as I have, unasked and unexpectedly, to the high honor of President, and I will truly do my best for the State Medical Society. I have always said that these honors are only honors when they come unexpectedly and unasked, and I have also said if you will tell me what the profession think of a particular doctor in his own town and in his own State, I will gauge him accordingly. This is because nobody can understand, appreciate or know the quality of a Doctor unless he is a medical man himself. When medical men think well of their colleague I know he must be all right. I therefore consider it an especially great

honor to have been elected to this office in my own State and by my own colleagues. For that reason I must again sincerely thank you and hope to have your co-operation in making the next meeting the largest and the most successful in scientific and other ways in the history of the Society."

There being no other business to come before the Society, on motion, the meeting adjourned *sine die*.

B. R. SCHENCK,
Secretary.

Report of the Council.

To the House of Delegates:

As material for this report is being assembled, the news comes to the Council of the sudden death of Dr. George W. Moran of Detroit, late Treasurer of the Michigan Medical Society. His death following a severe attack of pancreatitis was shockingly sudden and a severe blow to the many friends of this accomplished gentleman both in and out of the profession. He has been a painstaking, loyal and conscientious officer of the State Medical Society for many years and bore the highest standing in professional circles.

The vacancy in the office of Treasurer occurring through the death of Dr. Moran has been filled by the Council in the election of Dr. Willis S. Anderson of Detroit for the unexpired term.

Dr. George Dock, formerly Councilor from the First District, resigned September of last year because of change of residence to another State. To the members of this body as to any body of physicians anywhere extolling the merits of this illustrious member of the profession would be supererogatory. Suffice it to say that he brought to the Council the same clear insight and acumen that have distinguished him in his medical work always. The Council deeply regrets the loss to the profession of this State of this exemplar of the best in Medicine and wishes him the success sure to follow in his new field.

The vacancy occasioned by the resignation of Dr. Dock was filled by appointment by the President of Dr. L. J. Hirschman of Detroit.

Membership.

The membership of the society hereafter to

be treated in detail indicates that the organization is prosperous notwithstanding commercial depression prevalent during the last two years. The present membership of the society as given on the books of the State Secretary is 2,029. The paid membership for 1908 shows an immaterial falling off over that of the previous year, this condition being attributable beyond any doubt to commercial stringency. However in the last analysis it may not be considered an altogether flattering outlook when membership of the society, despite increasing population, shows decline. To be sure, this element enters into the reckoning, that higher medical standards may be slowly lowering the per capita proportion of physicians to population. It behooves each member of the society to give the matter of membership earnest and conscientious thought to the end that no physician of proper attainments and respectable standing shall be found in any other relation to the medical profession than that of active (and in the use of this word much may be implied) member of his county society.

The following extract from the report of the State Secretary to the Council presents the matter of membership in detail.

"*Membership.* A tabulation of the paid membership for 1908 shows that dues were received from 1883 as against 1892 in 1907 and 1873 in 1906. These figures represent the number paid by December 31st for the year stated. The total paid membership for 1907 was 1975, showing that 83 members did not pay 1907 dues until 1908.

"Comparing 1907 and 1908 up to December 31st, we find that Councilor districts No. one, three, five, six, seven, ten and eleven have gained, while districts No. two, four, eight, nine and twelve have lost.

"Taken by counties, the following are conspicuous:

"Macomb had but ten paid for 1908 against 22 in 1905. The number has been gradually getting less each year.

"Hillsdale had but nine paid members, as against 17 in 1906. A new secretary has been elected in Hillsdale and he writes me that he hopes to do something with the society.

"St. Joseph has 23 paid members against only nine last year—a good illustration of what new blood can do. I believe the Coun-

cilor of the district used his influence to elect a new secretary in St. Joseph.

"Ionia has made a good gain—about 40 per cent.

"Saginaw has made the poorest showing—reporting but 38 members against 59 for 1907—a loss of about 35 per cent.

"Grand Traverse, Mason and Tri show comparatively large losses.

"Marquette shows a falling off of 10 of the 38 members in 1907.

"As before stated, the loss of nine for the whole State may be considered fortunate considering the hard times. It is to be hoped the coming year will show a gain."

Post-Graduate Study.

Judging from the experience in certain of the Councilor districts, the interest in post graduate study is waning. This has been in at least one previous year a source of unification and of accretions to membership and the revivifying of the work should be attended with good results.

Councilor District Meetings.

Such meetings have been held during the year in the following districts: First, second, third, fifth, eighth, eleventh and twelfth. They have been as a rule successful, both from the viewpoint of medical work and social interest and it is the policy of the Council heretofore expressed to give to such meetings active encouragement and support.

Time and Places of Meetings.

Experience of previous years shows the very great importance of arranging for meetings of the State Society in the cities of large population and adequate hotel accommodations. Central location is also much to be desired. Where departure from this has been made, attendance at the annual meetings has been disappointing and a meeting attended by few (however high the quality) cannot be compared in its accomplishment with that at which large numbers are present. In church, in fraternity work, in public assemblies of every character, it is numbers that is of importance. People go where people go and enthusiasm is the logical and necessary accompaniment of a large representation in any gathering. In this connection, the report of the

State Secretary to the Council is of much interest.

"The annual meeting this year was a success in every way, except in respect to that without which no annual meeting can be a success. Attendance in large numbers is necessary to make a meeting of a democratic organization, like the State Society, a success; without a large attendance such a meeting must be counted a failure, despite the best of papers, the keenest of enthusiasm and the most genial hospitality. Many who attended the Manistee meeting spoke of it as the best they had ever attended; surely, there has been none in the experience of the present secretary, marked by better feeling, pervaded by greater enthusiasm or characterized by a spirit of more earnest work, yet there was lacking the one essential to success—a good attendance. Meeting as we do next year in Kalamazoo, we should have a registration which has not been equalled since the Detroit convention of 1903."

Secretaries' Meeting.

A meeting of the county secretaries was held at the Hotel Cadillac in September, 1908. There were present 30 county secretaries and six members of the Council. The state secretary reports added interest in the work on the part of those secretaries who attended the meeting. Their correspondence has been more promptly attended to and remittances for dues have been earlier made. He wisely suggests that in case the meeting of the State Society in the fall should prove successful, that a meeting of the county secretaries in the winter concurrent with that of the Council (the day before or the day after) should be held. Indeed the county secretaries at their meeting expressed themselves as favoring such a move.

Medical Defense.

At the meeting of the Council in January, a tentative plan for medical defense was adopted to be submitted to the House of Delegates for action during the present meeting. The most careful thought was given to this plan. In its construction, the experience of those best qualified for its outlining was freely used and the Council feels that a debt of gratitude is owing to Dr. Tibbals for the disinterested, conscientious and painstaking work which he

has brought to bear upon the solution of what is really a most important question. Naturally, individual opinions in the Council as to minor details were at slight variance, but the final output shows the best thought and is the result of mature deliberation. As to the detail of the appointment of the Medical Defense Committee, the Council feels this to be wholly immaterial. If the appointments can be better thought out in the smaller meetings as that of the Council, well and good. If on the other hand, it is the opinion of the House of Delegates that the committee should be constituted by vote of that body, also well and good. It is results that are required and as in all else, it is desirable that machinery looking to their attainment be as little complicated as possible. The above point may then be looked upon as an objection of a wholly non-serious character. That, however, which was raised by one of the County Societies to the basic principle of the organization, the compulsory feature, is one admittedly apt to develop divergent views. That this plan, however, offers the greatest good to the greatest number was the opinion of the Council after mature reflection upon the matter. It differs in no essential particular from the compulsory insurance, the sick benefit assurance and the provision for families in many factories, in marine hospital service of the United States and elsewhere. It has indeed more of the voluntary feature than the arbitrary deduction of a certain percentage of wages of employees in the interest of their medical and nursing care when ill, or provision for their families in case of death. The Council feels, however, that if there is more than a very small minority of the House of Delegates antagonistic to the plan, it should fail of adoption and be discarded. It may not be out of place to add that there can be no personal ends to serve in this matter on the part of any individual or organization within the State Society. Wayne County has a thoroughly well-oiled and adequate medical defense organization. Its suggestion to make this state wide is purely altruistic and no motive other than the good of the profession at large inspires those who have taken a lively interest in the late propaganda. The Council approves of the plan to be submitted by the Medical Defense Committee to the House of Delegates.

Finances.

The financial report of the secretary and treasurer to the Council is as follows:
Receipts for 1908 were:

From dues	\$4,033.50
From advertising (gross)	1,786.53
From Misc. sources.....	16.00
Total	\$5,836.03

Disbursements:

Journal Expenses	\$4,226.98
State Society Expenses....	941.77
Total	\$5,168.75

Net profit for the year.....	\$ 667.28
Balance on hand January 1, 1908..	2,180.53

Balance in Treasury January 1, 1909 \$2,847.81

The following statement covers all transactions in detail from January 1, 1908, to January 1, 1909:

Cash in Treasurer's hands,	
January 1, 1908.....	\$2,180.53

Receipts.

Dues	\$4,033.50
Advertising (gross).....	1,786.53
Miscellaneous	16.00
Total	5,836.03
	\$8,016.56

Disbursements.

Journal:

Printing Journal	\$2,732.30
Mailing (addressing and wrapping)	42.00
Postage to Detroit mem- bers	100.20
Postage, second class.....	91.10
Salary, Editor.....	300.00
Salary, Associate Editor...	300.00
Mailing list.....	28.00
Advertising commission...	357.25
Postage	24.63
Office help	60.00
Env. for Journal (55,000)..	143.00
Printing, Stat., Office Sup- plies	5.15
Exchange	6.60
Newspaper Clippings.....	36.75
Total	\$4,226.98

State Society.	
Manistee Meeting.....	\$ 78.50
Printing programs.....	12.00
Postage	24.62
Office help.....	60.00
Salary, Secretary.....	300.00
Exchange at bank.....	6.60
Telegraph, Telephone and Exp.	1.90
Printing, Stationery, Office supplies	19.30
Secretary of Council.....	50.00
Stenographer of Council...	50.00
Council Meeting, January, 1908	21.00
Com. on Scientific Work...	7.50
Com. on Contract Practice.	2.00
Com. on Pat. Med. Evil....	15.00
Councilors' Expenses	112.75
Reorganization reprints....	15.00
Contract Prac., Cir. and Postage	29.80
Sec. of Council, Postage account	8.74
County Secretary's Meeting Secretary's expense to County and State Meeting	96.64
Total	30.42
	\$ 941.77
 Total Expenditures.....	\$5,168.75
Cash in Treasurer's hands January 1, 1909.....	2,847.81
	\$8,016.56

Journal.

The Journal of the State Medical Society has appeared with commendable regularity each month during the year. The Council feels not a little pride in the fact that so good a publication is issued to the profession monthly at an expense relatively small. The Journal makes no pretense to artistic design or embellishment but its typography is good, the paper on which it is printed is of excellent quality and its advertisements are clean and wholesome. Above all, its editorial and literary work are in no respect inferior to that of any other journal of the same class in the knowledge of the Council.

The Council desires to congratulate the Secretary-Editor and his associates upon their devoted labors and to thank them in this pub-

lic manner for the excellent service rendered to the Society during the past year.

The following resolution is presented for your consideration:

Resolved, That the Council looks with extreme disfavor upon action on the part of any Medical Society contemplating the expulsion from membership because of consultation with or affiliation with some member of the profession legally qualified to practice medicine but not a member of a County Society.

It is suggested that a Committee of Eight be appointed by the House of Delegates to secure legislation making it a misdemeanor to use the term "certified milk" except by a regularly organized Medical Milk Commission.

All of the above is respectfully submitted,

For the Council,

C. B. BURR,
Chairman.

Report of Committee on Legislation and Public Policy, and Michigan Member of the National Legislative Council.

Your Committee on Legislation and Public Policy regret to have to report the action of the last Legislature, in its relation to the practice of medicine, as unsatisfactory and harmful in its ultimate results and tendencies. The passage of a bill creating a Board of Optometrists and making this branch of medicine independent of the General Medical Practice Act appeals to the Committee as a most serious innovation. It is the beginning of a disintegration of the practice of medicine and should be combated with all the power of an united profession. A large body of men will be constantly seeking an easier and quicker way into the practice of a specialty and the precedent has been established. It is the feeling of the Committee that the gravity of this first step was not fully appreciated by the medical men of the State, else it would have had an united support in its effort to defeat this measure. In spite of an earnest appeal to the county societies and through them to the members of the Michigan State Medical Society, petition after petition was presented to the Legislature numerously signed by members of the society, asking for the passage of this act.

The Council of this Society had by its vote instructed the Committee to oppose this measure. Had the members respected the judgment of the Council there would have been no Optometry law. It is not the purpose of the Committee to complain, but to further impress the consequences of a divided profession.

A bill was also passed providing for the license of trained nurses by a Board appointed by the Governor and consisting of three nurses, one registered physician, and the secretary of the State Board of Health. This measure was opposed on the ground that the nurse is subordinate to the medical man who is the only competent judge of the qualifications for the practice of this art. Any act which makes the nurse independent of the medical profession, which this law in effect does, must be detrimental to all interests. That this is unwise legislation is freely asserted by those who have had an opportunity to observe its working out in those states in which some such law has been in operation long enough to be a demonstration.

There was no positive duty for the Committee and its negative or defeating work seems to have been ineffective. However, the Committee wish to express to the Secretary of the State Board of Registration in Medicine, for his energetic co-operation and support, its grateful appreciation.

The Chairman of this Committee as the Michigan member of the Committee on Medical Legislation of the American Medical Association, attended the annual conference on Medical Legislation held in Washington in January, and reported for this State.

The conference considered (a) the Navy Medical Reorganization Bill; (b) bills relating to the Public Health and Marine-Hospital Service; (c) measures relating to the Federal and State Regulation of the Public Health; (d) relief measures for the surviving families of persons who have died in the medical service of the country; (e) the uniform regulation of the practice of medicine by the different states; (f) uniform regulation of vital statistics by the states; (g) uniform state laws on foods and drugs; (h) the attitude of the last administration in appointing a commission for the purpose of reviewing and thus overriding certain findings of the governmental agencies lawfully established for the interpretation and enforcement of the National Pure Food and Drug Act, and (i) the general question of expert medical testimony.

An outline of the text, scope, and purpose of these measures and suggestions will be found in the report of the Committee on Medical Legislation made at the last meeting of the American Medical Association.

The work of the Association for Uniform Medical Practice Acts in the states is most important, well supplementing the effort being made by the American Confederation of Reciprocating, Examining, and Licensing Medical Boards, and must eventually bring about a national standard law with reciprocity between all the states.

A Pure Food Law drafted by the Committee on Model Law of the Association of National Food and Dairy Departments, was endorsed by the Council on Medical Legislation and ordered printed and distributed by the Committee on Legislation.

When this bill is introduced in the Michigan Legislature it should have the earnest and energetic support of this body to secure its passage unamended else one of the important purposes, a definite and uniform standard for all states, will be defeated.

W. H. SAWYER,
Chairman.

Report of the Committee on Medical Defense.

One of the avowed purposes of this Society, as stated by its Constitution, is to federate and bring into one compact organization the entire medical profession of the State of Michigan, and to guard and foster their material interests. In full accordance with this avowed purpose, your Committee, appointed by order of the 1908 House of Delegates, submits its report upon Medical Defense.

We assume your familiarity with the general subject and epitomize our argument for the inauguration of this work by a simple statement of fact, i. e., that in all other states where an efficient plan has been long enough in force to justify rational deduction, it is clearly proven that this work is both feasible at small per capita expense and also of incalculable value in increasing the membership, in holding members in the Society, and in stimulating the prompt payment of dues.

By an efficient plan, we mean any plan which agrees to present the law in its application to the case of any member charged with civil malpractice, to the judge and jury, the one and only

tribunal whose province it is to fix his guilt or innocence, and no plan can be termed efficient which aims to do anything less than this.

Our plan contemplates the building up of a bureau of legal information in charge of competent attorneys, to which bureau any member of the Society shall have access in case of need.

We make this privilege retro-active, and also grant the aid of the Bureau after the death of a member, in order to extend its usefulness to the greatest possible degree.

We believe that this Bureau will be worth the full amount of his total society dues to every member, and that the addition of this feature will eventually result in a large increase of membership. We believe also that with closer union among an increased membership, the thoughtless word of criticism which incites malpractice suits will be less often spoken, and that an adequate presentation of the law before Michigan courts will result in an education of lawyer and layman as to the rights and liabilities of physicians under the law, whereby ultimately only the rare cases of seemingly apparent malpractice will appear upon the dockets.

The proposed plan is embodied in the following amendments to the By-Laws:

Chapter XII., Sec. 3, third line, after "funds", insert "except the Medico-Legal Fund." Chapter VII., Sec. 4, line 10, after "Treasurer" insert "and the Chairman of the Medico-Legal Committee." Chapter VIII., Sec. 6, line 27, amend to read "It shall be the further duty of the Council to hold the official bond of the Treasurer and the Chairman of the Medico-Legal Committee for the faithful execution of their offices, annually to audit and authenticate their accounts," etc. Chapter VII., Sec. 6, last sentence, after "Treasurer", insert "or the Chairman of the Medico-Legal Committee." Chapter IX., Sec. 1, add "A Medico-Legal Committee." Chapter IX., add as subsequent sections:

Chapter IX., Sec. 8. The Medico-Legal Committee shall consist of an Executive Board of five, to be elected by the Council, and also one member from each component society not otherwise represented, to be elected by the component societies. The Executive Board shall be elected for one, two, three, four and five years respectively, and thereafter one member shall be elected each year to hold office for five years. All other members of the Committee shall be elected for one year.

The election of members of the Executive Board shall be made by the Council at the time of the annual session of the Society, and that of other members of the Committee shall be made by each component society at its first meeting after September 1, the term of office of all members of the Committee beginning on the first day of January following. No Society voting not to participate in the privileges of this Bureau shall be entitled to representation on the Committee.

Sec. 7. The Council, at the same meeting, shall elect one of the five members of the Executive Board as Chairman, whose term of office shall be for one year from the first of January following. He shall act as Chairman of the Executive Board and of the entire Committee, and shall be the Custodian of the Medico-Legal Fund. No disbursement shall be made from the Medico-Legal Fund without the signatures of the Chairman of the Executive Board and the Chairman of the Council or the Secretary of the State Society.

In order that the Chairman may be able to give the requisite amount of time to his duties, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council.

Sec. 8. The Executive Board shall report to the Council at its annual meeting, giving full particulars of the work of the Committee, and a detailed statement of income and disbursements.

It shall engage by the year a competent firm as general attorneys, and fix their compensation. Their duties shall be to compile from all available sources court decisions fixing the law of liability of physicians for civil malpractice, such compilations to be the property of the Society, and also to defend any member of the Society not in arrears, when sued or threatened with suit for civil malpractice, or to supervise such defense through a local attorney.

Sec. 9. The Medico-Legal Fund, consisting of an initial assessment of one and one-half dollars from each present and future member of the Society, and a subsequent assessment of one dollar for each year after the first, shall be collected by the state secretary, and paid at least monthly, as collected, to the chairman of the Medico-Legal Committee.

In the event that any County Society, by a majority vote of all its members, shall elect not to avail itself of the privileges of the Medico-Legal Fund, then this special assessment shall not be collected or accepted from any member of

that component society and no member of such society shall be entitled to any of the privileges of the Medico-Legal Bureau.

Sec. 10. Members in arrears after June 1st, shall not be entitled to defense for any suit, the cause of action of which arose while in arrears, and any member sued or threatened before joining the society or before the organization of this Medico-Legal Fund must pay the actual cost of defense in such suit.

Sec. 11. With the exceptions above quoted, the Medico-Legal Committee shall undertake the defense of any member of the Society sued or threatened with suit for civil malpractice, regardless of the time when the alleged cause of action arose, and shall also defend any action for civil malpractice against the estate of a deceased member, provided he or she while living has conformed to the foregoing requirements.

Sec. 12. In the event that during any one year the demands upon the Medico-Legal Fund be large enough to exhaust it, the Council shall be authorized to loan sufficient funds from the treasury of the State Society to meet the contingency.

Sec. 13. It shall be the duty of any member of the Society threatened with action for civil malpractice to confer at once with the member of the Medico-Legal Committee from his component society and with his aid prepare the case and forward the same to the Chairman of the Medico-Legal Committee. He must agree not to settle or compromise his case without the consent of the Executive Board and the General Attorneys. He may recommend, in conjunction with the local member of the Medico-Legal Committee the best available local attorney, but the authority to engage the services of local attorneys shall lie with the Executive Board and their General Attorneys. The local attorney chosen shall enter the appearance of his client and undertake his defense under the supervision of the General Attorneys.

Sec. 14. All attorneys' fees and court costs will be paid from the Medico-Legal Fund, and defense carried through all Michigan courts, but under no circumstances shall this fund be liable for any damages declared against an unsuccessful litigant.

Chapter XI, Sec. 1, first sentence, after "Societies" insert "exclusive of the special assessment for the Medico-Legal Fund."

With a few minor changes, these amendments embody the plan recommended by the Council to

the members of the Society and their representative body, the House of Delegates.

An earnest endeavor has been made to inform all members regarding this work and to ascertain their wishes. So far as we are informed, unfavorable action has been taken in but one society, and the result of the postal card vote, so far as heard from, shows a very large majority in favor of the plan as proposed.

We strongly urge the inauguration of the proposed Medico-Legal Bureau.

Signed: F. B. TIBBALS, *Chairman*
A. M. HUME,
A. H. ROCKWELL,
W. J. DUBoIS.

Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State.

To the President and Members of the House of Delegates of the Michigan State Medical Society:

Your committee appointed to encourage the systematic examination of the eyes and ears of school children throughout the State has the honor to make the following report:

Last year a circular letter was sent to the superintendent of school in cities with a population of 5,000 or more. It was determined that the eyes and ears of the scholars in nineteen cities were being examined more or less systematically. Because of lack of funds no letters were sent out this year, but from the increased number of letters received asking for instructions, etc., we know a distinct gain has been made.

Your committee had hoped to be able to make some recommendation regarding the advisability of having a law enacted requiring systematic examination to be made. Such laws exist in Massachusetts, Vermont, Connecticut and Rhode Island. We have been in communication with the authorities in the states named, but have not as yet received sufficient information to be able to report for or against the advisability of such legislation. The inquiry will be continued and we shall hope to be able to make a definite report at the next meeting of the Society.

The educational plan must be continued for the present. It is important that the examination

should be made by the teachers. Each city should have a physician who is willing to instruct the teachers and see that the examinations are made, but in all cases the superintendent of the schools should sign the Card of Warning which is sent to the parent or guardian of the scholar. If the examiners do the work themselves or refer the scholars to physicians, professional jealousies are certain to be aroused, and this misfortune more than any one thing, unless it be the apathy of the teachers, has retarded the progress of this important work.

The importance of these examinations is now generally known, but the workers are yet far too few.

As in all our previous reports your committee recommends the method of examination devised by Dr. Allport. Cards giving full directions can be obtained from The Peerless Optical Company, Heyworth Building, Chicago. Order "Visual Charts for Schools."

A sample card is included in this report.

Respectfully submitted,

WALTER R. PARKER,
CHARLES H. BAKER.

Report of the Committee on the Study and Prevention of Tuberculosis

The most important progress in the work against tuberculosis was the enactment by the Legislature of 1909 of a bill designed in an administrative way to control tuberculosis in the State of Michigan. The preparation and passage of this bill was the result of the combined work of the members of the State Board of Health, the Board of Councilors of this Society, the members of the Committee on Legislation and the Committee on Tuberculosis. The Michigan Tuberculosis law contains essentially the good points of the laws passed in the states of New York and Wisconsin, but modified and improved and adapted to the needs of our State. It provides for compulsory notification of open and closed forms of tuberculosis for statistical purposes. The records of reports are open for inspection only to the health authorities. It provides further for free examination of sputum and compulsory disinfection of premises, penalty for the careless consumptive and also penalty for the physician who fails to report a case of tuberculosis or who makes false reports. Furthermore, upon recov-

ery of a patient the health authorities must be notified by the physician.

Your committee assisted materially in the organization of the Michigan Association for the Prevention and Relief of Tuberculosis. This Association is an auxiliary to the National Association. It has established some fifty local branches throughout the state, its object being educational and to interest the laity in the crusade. In evidence of its effectiveness the Michigan State Federation of Women's Clubs in session at Traverse City passed the following resolution: "Resolved, that we earnestly recommend that each club in the Federation renew its efforts to help stamp out that dread disease tuberculosis."

Your committee co-operated in securing additional appropriation for the State Sanatorium which you recollect was established in 1905 in response to a petition of this Society.

The Sanatorium located at Howell will soon have accommodation for one hundred patients. It is intended for incipient cases only and especially for those reduced in finance. It may be arranged to have the county from whence the patients come, pay the charge of seven dollars per week. As institutional segregation is now considered the most effective method for the prevention and cure of tuberculosis, this institution should commend itself to the members.

Members of your Committee assisted in the formation of an Association for the Prevention and Cure of Contagious and Infectious Diseases in the Upper Peninsula. Its membership consists of appointed delegates from the board of supervisors, the county physician and health officers. The object is to provide proper provision for indigents afflicted with tuberculosis or other contagious diseases at the expense of the county, or associations of counties.

H. J. HARTZ, *Chairman.*

News

The American Medical Association has appropriated the sum of \$5,000 for the purpose of creating a suitable memorial to Dr. N. S. Davis, the founder of the Association, provided that within three years an additional amount of \$20,000 be collected for this purpose, and provided also that the form of the memorial be approved by the House of Delegates of the Association.

Dr. R. T. Fuller of Grand Ledge has accepted the position of Dean of Flint Medical College, New Orleans, and left for that city on September 20th.

Dr. E. W. Haass, who has been taking work in the clinic of Professor Fraenkel at the Charite, in Berlin, returned to Detroit early this month.

"Doctor" A. D. Havens, of Sault Ste. Marie, late of Kalamazoo, was convicted in the Circuit Court of practicing medicine without a license and was fined \$40 and \$10 costs. He held himself out as an "eye specialist" and "optometrist." Since his conviction he has left the Soo for parts unknown.

Dr. Julius A. Post of Lansing, has been appointed United States Pension Examiner to succeed the late Dr. Elmer North. The pension board as now constituted consists of Dr. George E. Ranney, president; Dr. J. H. Wellings, secretary, and Dr. Post.

Dr. C. B. Burr of Flint and Dr. C. W. Hitchcock of Detroit, sailed on October 9th for Europe. They will attend the annual six weeks' clinic on psychiatry, given by Kraepelin, at Munich.

Dr. C. C. Slemons of Grand Rapids, City Bacteriologist, returned home recently from a two weeks trip, during which time he visited various city laboratories in the East.

Butterworth Hospital, Grand Rapids, opened its free dispensary on the 8th of October. The following is the newly appointed Out-Patient Department Staff: Medical—Drs. Collins H. Johnston, Eugene Boise, J. A. McColl, C. E. Koon, B. R. Corbus, Wm. Northrupp, J. D. Campbell, T. M. Koon, J. B. Hilliker, J. B. Whinery. Surgical—Drs. G. L. McBride, Ralph Apted, R. Webb, J. D. Hastie, R. R. Smith, A. M. Campbell, R. J. Hutchinson, E. P. Billings, H. Dingman, M. E. Smith, F. C. Warnshuis, R. H. Spencer. Eye, Ear, Nose and Throat—Drs. Roller, Kirkland and De-Kraker. Dermatologist—Dr. C. E. Hooker. Chemist and Bacteriologist—The House Staff of Internes. A large reception room and four clinic rooms have been newly decorated and furnished for this work. The hours from 12 to 2 p.m. have been designated for this service, and should the work demand it, these hours will be lengthened. There will be two members of each division of the staff in attendance every day. Thus

far the dispensary has been opened to the public for only two weeks and 27 patients have presented themselves for treatment and advice. The hospital authorities feel that there has long been a want in this city for this dispensary service and feel greatly encouraged over the successful manner in which the work is commencing.

St. Mary's hospital, Grand Rapids, held its annual Tag Day on September 25th. This netted them some \$4,500 which will go towards equipping its new hospital building that is being built. This building will be completed by June 1st at a cost of \$70,000. It will be four stories high, of brick construction, fire-proof and modern in all its details.

At a banquet of the Michigan Alumni of the Medical School of Northwestern University, given at the Rickman Hotel in Kalamazoo, September 14th, a permanent Michigan Alumni association was formed with about 30 members. Four local physicians and eleven of the alumni from other cities in Michigan were present. Dr. A. R. Edwards, Dean of the Medical Department, was present as the honored guest of the occasion. Following the banquet Dean Edwards addressed the members of the alumni present. He spoke with reference to the development of the school, what had been done and what it was hoped to accomplish in the future. The following were present: Drs. Shackleton, Balch, Boys, McNair, Kalamazoo; Dr. Holm, Lansing, Dr. Sherman, Detroit; Dr. Quick, Atlantic Mine; Dr. Garland, Buchanan; Dr. Snowden, Galien, Dr. Kensie, Three Rivers; Dr. Bulson, Jackson; Dr. Rogers, Jackson; Dr. Schultz, Coldwater; Dr. Vaugh, Covert, and Dr. Colman, Mattawan. The Michigan Alumni association of the Medical Department of the Northwestern University was formed.

The amount collected on Blue Star Day in Detroit has been announced as \$14,240.

Dr. V. L. Garbutt of Detroit has removed from 72 Washington avenue to 21 Charlotte avenue.

Drs. O. H. Lau, C. S. Oakman, W. A. Spitzley and A. W. Imrie, all of Detroit, have returned from abroad. While away they attended the meeting of the International Congress.

The annual session of the Detroit College

of Medicine opened September 22nd.

There is considerable agitation at present in Grand Rapids for the abandonment of the present ambulance service as conducted by the Police Department. The plan proposed is to district the city and assign a district to each hospital which will conduct its own ambulance service and make all the runs in its own district. The matter is at present in the hands of a committee of the Police and Fire Commissioners.

The Butterworth Hospital Training School held its annual graduation exercises on September 27th, when it graduated a class of 14 nurses. The addresses of the evening were made by Hon. T. J. O'Brien, United States Ambassador to Japan, and by the Superintendent of Public Schools, W. H. Elson. Several of the members of the graduating class have already received appointments in various hospitals and will do institutional work.

Grand Rapids Personals: Dr. T. C. Irwin has removed from the Majestic to the Ashland building. Dr. Frances Rutherford attended the Hudson-Fulton celebration in New York. Dr. E. W. Bernstein of Kalamazoo has opened offices in the Pontiac building and will divide his time between Grand Rapids and Kalamazoo. Dr. W. H. Kassabien of Coopersville will be in Grand Rapids on certain days, having opened an office over West's drug store.

Marriages

Donald Ross McIntyre, M. D., Gwinn, Mich., to Miss Caroline Merritt King of Milwaukee August 3d.

Loiza Elwell, M. D., Battle Creek, Mich., and Philip Johnstone, of Belfast, Ireland, at Detroit, July 31st.

H. N. Torrey, M. D., and Miss Nell Ford, both of Detroit, at Detroit, September 15th, 1909.

Deaths

Dr. Charles M. Snyder, of Lake Odessa, died at his home, September 5th, from pernicious

anemia, aged 58 years.

Dr. Richard M. Johnson, a graduate of Ann Arbor in the class of 1871, died at his home in Northville, September 9th, aged 66 years. Death resulted from uremia.

Dr. Charles T. Wilbur, for many years a member of the Kalamazoo Academy of Medicine and of the Michigan State Medical Society, died at Kalamazoo, August 19th, from cerebral embolism, aged 74 years. Dr. Wilbur was a graduate of the Berkshire Medical College, Pittsfield, Mass., in the class of 1860. During the Civil War, he was assistant surgeon and surgeon of the 59th and 95th Ohio Volunteer Infantry. After the war, he engaged in general practice, giving much of his attention to nervous and mental diseases. From 1876 to 1884, he was superintendent of the Illinois State Institution for the Feeble-Minded, at Lincoln, and later opened a private retreat for the feeble-minded at Kalamazoo. He was a trustee of the Michigan Home for Feeble-Minded and Epileptics at Lapeer.

Dr. Elmer D. North, Detroit Medical College, 1881, a veteran of the Civil War, and at one time superintendent of schools in Ingham County, died from angina pectoris, August 17th, aged 68 years.

Dr. George Reid, a member of the Tuscola County Society, State Society and American Medical Association, died recently at his home in Reese, where he had practiced for 36 years.

Dr. Byron S. Knapp, for fifteen years a member of the Owosso Board of Education, died in that city on August 20th, aged 64 years. Dr. Knapp was a graduate of the Cincinnati College of Medicine and Surgery, in the class of 1874.

Dr. Casper K. La Huis, formerly of Kalamazoo, later of Zeeland, died at his home from tuberculosis, aged 40 years. Dr. La Huis was a well known member of the Kalamazoo Academy of Medicine and of the State Society. He graduated from Ann Arbor in 1896, and was afterwards assistant in gynecology and obstetrics for several years.

Dr. Charles T. Newkirk, a member of the Bay County Medical Society, died suddenly while at home, on September 16th. Dr. Newkirk had an eventful career. He was born in St. Williams, Canada, in 1841, taught school at 14 to get money to educate himself, studied medicine with Hon. John Rolph and later attended the University of Toronto, Victoria College. He graduated at 21.

and after a short practice in Canada moved to South America, where he learned Spanish and became governor-director of a province and later doctor to the Argentine hospital. He spent three years as surgeon in the Brazilian army, and after a visit back at his old home, settled to a quiet practice in Assumption, Paraguay. There he passed through several epidemics of smallpox, yellow fever and cholera. Dr. Newkirk located in Bay City 30 years ago and gained a large practice. As a master of four languages, he served the government in a number of incidents involving South American relations. When the Spanish war broke out he went with the Thirty-third Michigan, and served with distinction. Afterwards he was made major of the hospital corps, a member of the pension board and a U. S. examiner for recruits.

Dr. Wesley Erwin, of Bay City, died suddenly at Grand Lake, August 13th, from heart disease. In 1870, Dr. Erwin graduated from the Bellevue Medical College. He was a member of the American Medical Association and the American Academy of Medicine; was prominent among the veterans of the Civil War; was a member of the Bay City Health Board.

The following resolutions were adopted by the Bay County Medical Society:

Death has taken from us one of the most loved, ablest and honored members of this Society—Dr. Robert W. Erwin—who died after a few hours' illness, August 13th, 1909.

It was a great shock to all, and to those who had known him most intimately during the long years of his residence in this city, it is a personal bereavement and sorrow.

His many acts of kindness and thoughtfulness when called to our homes while sickness and death were afflicting us, will never be forgotten. His uniform courtesy to his professional brothers, his unselfish advice, staunch support and assistance were ever ready and cheerfully given from his rich store of knowledge and experience. There are few of us who have not profited by it.

As a token of our appreciation of his pure life and character, we adopt the following resolutions:

Resolved, That in the death of Dr. Robert W. Erwin, this community and the medical profession has lost an able, talented and conscientious physician, and a man and citizen of perfect honor and integrity.

Dr. George Howell, of Tecumseh, died September 14th, 1909, at his home, after two years of failing health. He was born in 1836, in Macon Township, Lenawee County, into the home of a pioneer doctor where there were few luxuries, but plenty of hard work and privations. Dr. Howell grew up on a farm, meeting the life of a pioneer's boy, but somehow getting inspiration for an education and for a most unselfish life. The district school, Tecumseh High School and Hillsdale College gave him his academic instruction. In 1860, he entered the Medical Department of the University of Michigan, graduating in 1863. With an abundance of the highest grade recommendations he confidently expected an appointment in the army. For some reason which Dr. Howell never could discover, our great war governor, Blair, unceremoniously refused him an appointment, a disappointment that the doctor never ceased to regret.

For some 20 years he practiced in the country where he was born, coming to Tecumseh in 1884, where he soon acquired a large practice. Three terms he represented his district in the lower house, and one term in the upper house of the Michigan Legislature. For 15 years he was President of the Tecumseh Board of Education, and one year he was President of the village.

In all philanthropic enterprises he was deeply interested, and his own private benefactions will never be known 'till the books of eternity are opened. A few of his good deeds occasionally come to light, just enough to hint at the many that were hidden by his own modesty. His devotion to his patrons was remarkable and bordered on the heroic. A doctor of "the old school," he never attempted a specialty, but patiently and unselfishly served rich and poor alike. Yet his professional brothers who met him in counsel found a well disciplined mind, and a large fund of available common-sense knowledge, added to his many years of careful medical reading.

Two years ago failing strength compelled him to relinquish active practice, since which time most of his days were spent on his farm, the earnings of his youthful professional life, where on September 14th, he quietly and without pain passed away.

In 1864 he married Miss Ann A. Remington, with whom he lived most happily for 44 years, her death in 1908 seeming to decidedly hasten his passage to the grave. He leaves three married daughters with six grandchildren.

Dr. George W. Moran, Treasurer of the State Society since its reorganization, died suddenly on August 12th. Dr. Moran was born in Morgantown, Va., in 1868. He received his literary degree at the Ohio State University and his medical degree at the University of Michigan, in 1892. He began practice in Detroit with Dr. C. G. Jennings, later having his office on Jefferson avenue. In 1895, he married Miss Minnie Hasbrouck, of Marshall. Dr. Moran's activities were many, he being Chief of the Medical Staff of St. Vincent's Asylum and a member of many medical societies and clubs.

One knowing Dr. George Moran casually or superficially might fail to appreciate him, perhaps even dislike him, but to know him intimately was to love him.

He himself was a man of strong likes and stronger dislikes, who had no hesitation in expressing his approval or disapproval forcibly regarding anybody and everything, a policy generally not conducive to popularity. Diplomacy was foreign to his nature in his social relations, although in the relation of physician and patient, he was gentle, considerate and tactful in the highest degree. He was an excellent practitioner, careful in diagnosis, skilled in treatment. His families and patients were his personal care, their troubles and responsibilities his, and he was closer to the hearts of his clientele than many often get in this commercial age.

Much of his work was among children whom he seemed to love and understand intuitively. He was fond of nature and of outdoor sports, never tiring of the boat, the rod, the reel and the bait-can, whether the sky was blue or overcast with clouds. Then all gruffness of exterior faded away, all cares were laid aside, and the true man appeared. Kind and gentle, loyal and true to the highest and best in life.

The following resolutions on the death of Dr. Moran were adopted by the State Society at the Forty-fourth Annual Meeting:

WHEREAS, It has pleased Almighty God to remove from the ranks of our society, Dr. George W. Moran, a faithful and consistent officer and member, and an eminent practitioner of our art.

Therefore, be it Resolved, That in the death of Dr. Moran, the Michigan State Medical Society has sustained an irreparable loss and that the sympathy of this organization be and is hereby extended to his family and friends.

Be it further Resolved, That these resolutions be spread upon the minutes of this society and a copy of the same be transmitted to the family of the deceased.

Correspondence.

BUDAPEST, HUNGARY, Sept. 4, 1909.

To the Michigan State Medical Journal—

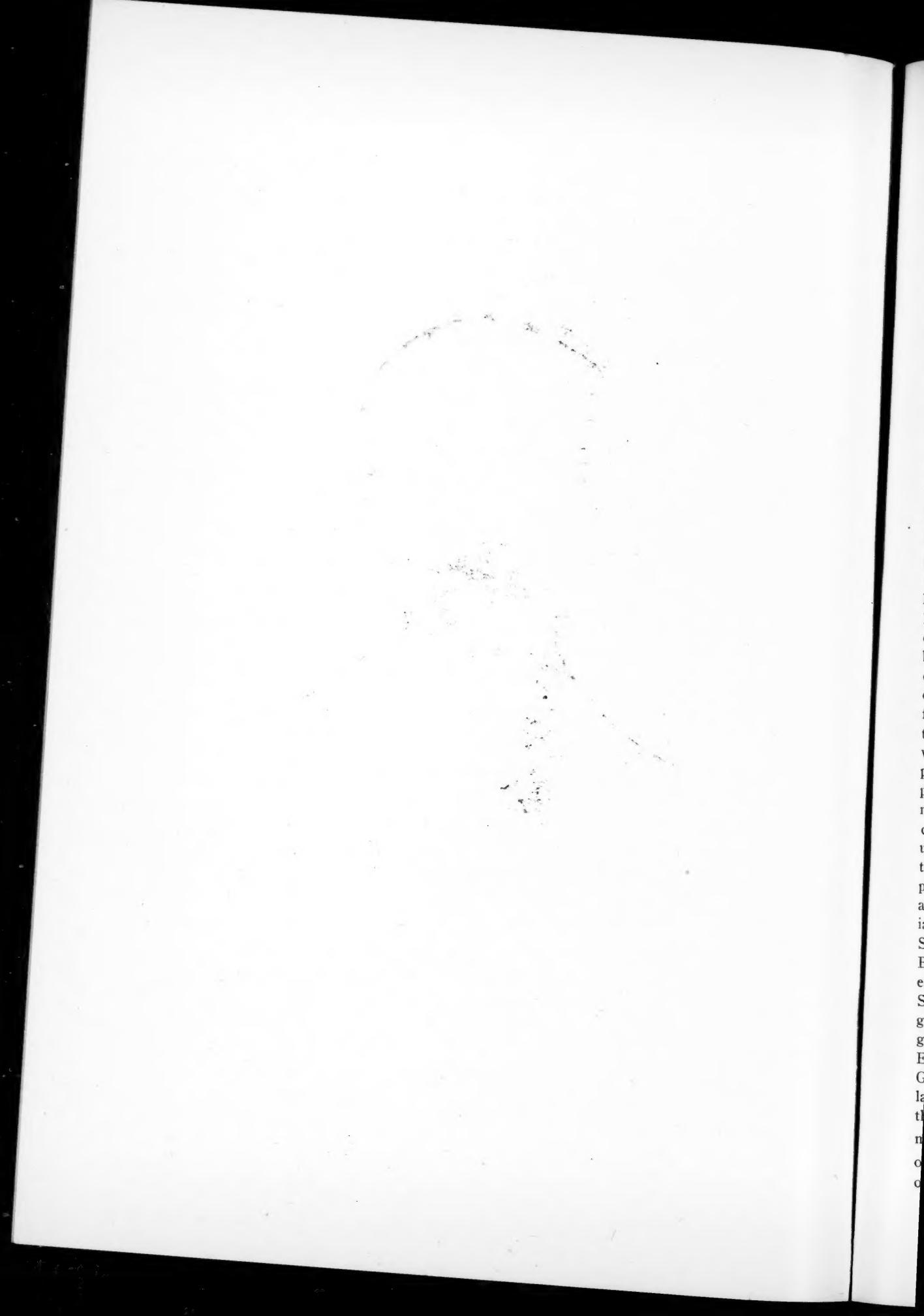
The Sixteenth International Congress, convening in this city from Aug. 28 to Sept. 4, is now ended, and a brief retrospect may be of interest to you.

First of all, a few words as to the city, which is somewhat off the line of usual European tours. Not so very many years ago Buda and Pest, lying on opposite shores of the Danube River, were separate and rival cities; but after uniting in one municipality they buried rivalry, merged their names, built three magnificent bridges across the river, and flourished mightily, so that at present the population is over 800,000. The Buda side is made picturesque by two rugged hills rising abruptly from the shore, one crowned by a royal castle, and the other crested by a fortress, and merging with the city by terraced slopes, relieved by the striking monument and pergola to St. Gerhard.

The Pest side is quite level, but presents an esplanade or "Corso" along the shore, where none but pedestrians are allowed, and where on Sunday afternoon one sees a vast promenade of the Hungarian populace of all classes. The Pest side is the larger of the combined cities, and it is here that the great business, political and social centers are located, and where the Congress has met. It is a comparatively modern community, with fine buildings devoted to government, education, art, science, and business, not to forget hotels and restaurants, which in these countries are seldom large but always numerous. To the majority of visitors it seems very foreign, because the language is absolutely strange, even the signs on the streets and stores and everywhere being in Hungarian. The language is of Hunnic origin and quite unrelated to any tongue studied by the ordinary linguist. The people are intensely jealous of their language and patriotic for Hungary; they are said to relish neither the German tongue nor the Austrian dominion forced upon



George W. Moran, M. D.



them by their union with the Austrian empire. However, all the educated classes, as well as nearly all public servants and storekeepers, speak German. Indeed, they are apt to know several languages, for their own is rarely known to visiting foreigners.

Our arrival in Budapest was marked by a babel at the depot, for every train brought crowds of people, and the excitable Hungarian temperament, ignited by the impatience of tired travelers, produced a confusion of sound and movement that was memorable, but indescribable. The Hungarian cabman is one of the most reckless and fiery in all Europe. Many of them understand several languages. We were astonished one day to have our driver converse with us fluently in English; he had worked in New York for three years! Added to the confusion of arrival at night, it was intensely hot, but our hotel, the "Royal Hungaria," brought us cooling breezes, for it fronts upon the Corso, overlooking the Danube at its most picturesque point. I was lucky enough to have a fine room with this outlook, and as a glorious moon stood above the opposite hills, the effect was such as never can be forgotten. The Congress has brought the largest attendance in its history—it is reported to be over 5,000; preparations have been in progress for many months and the details of an international meeting far exceed a simple national convention. For instance, the one consideration of polyglottism requires that every official piece of printing be in four languages—Hungarian, German, French and English. Also, every office—central, information, distribution, secretary's, treasurer's, etc., must have capable linguists in attendance. For here one rubs shoulders with people of all nations—not only the four named above, which are in the majority—but also Italian, Spaniard, Portuguese, Dutchman, Dane, Swede, Russian, Greek, Bulgarian, Roumanian, Bosnian, Servian, Swiss, Turk, Persian, Japanese, Siamese, Egyptian, and representatives from South American countries. But everybody can get along by means of one or more of the three great modern languages—German, French and English—and greatest of these at this meeting is German. Yet the lack of one universal modern language is emphasized by the use of Latin on the beautiful bronze medal badge given to each member; this medal represents Aesculapius on one side and the Hungarian House of Parliament on the other. The increasing desire for a suc-

cessor to Latin is manifested by the pamphlets given away in the cause of the "Linguo Internaciona," a modified Esperanto, which really appears very sensible, and certainly easy to read.

I registered as a participant in the Congress on Sunday morning, the 29th of August. Many had registered in advance and found waiting for them preliminary reprints of papers to be read in their section, as well as invitations to certain functions, and the enrollment of their names on a membership list. We others, who had overestimated Continental rapidity, had to struggle for reprints, received our invitations a day or two "post facto," and saw neither our own nor our friends' names listed; this failure to print in the daily bulletin a list of new Congressists made it almost impossible to ascertain who was present or where any one was stopping. As it was, however, I was presented with reams of printed matter, from one-page circulars to 400-page bound volumes, making a bundle that I was obliged to send to the hotel by express. Subsequent examination showed these to be mostly advertising matter, regarding various Hungarian Sanitaria, baths and other institutions; there were also souvenir books of the city, and the usual descriptive matter concerning the Congress—programs, both scientific and social, organization, delegations, list of pre-registered members, plan of the buildings, etc. The convention was held in the buildings of a Polytechnical School, on one of the chief down-town streets. This afforded separate auditoria for all sections, in a comparatively small area, easily accessible to one another. This seemed an admirable provision, and the arrangements made for the convenience and comprehension of all visitors appeared excellent. As the machinery of the Congress was set in motion, however, the execution of the plans proved inferior to the conception, for one heard on many sides complaints regarding certain details which with us seldom cause trouble. This may be ungracious on the part of a visitor and guest, especially in view of the cordial hospitality extended to every one, but certainly I heard similar comments from many English-speaking people.

I will not dwell on any of the scientific part of the Congress, as the programs are too enormous, and the sections too numerous; there were 21 announced—(and a new section was formed for orthopedics)—with a total schedule of about 1,500 communications to be read! The volume of heterogeneous medical information of-

ferred at such a Congress is astounding, and defies all efforts at even computing it. It is possible only to gain general impressions, and to glean a few helpful ideas here and there. I endeavored to visit numerous sections during the week, to see and hear numerous men of renown. This was difficult, for the schedule was very indefinite and one seldom knew when any given paper would be read. Moreover, many of us had to confess that comprehension was greatly impeded by several factors, such as the foreign tongues, the failure of the chair to preserve quiet, the atrocious ventilation of nearly every room, and the indifferent delivery which seems to be characteristic of medical men the world over.

To me the Frenchmen were the most interesting of the European speakers; the Germans were inclined to be didactic and cumbersome, while the Hungarians, though often brilliant, had sometimes a peculiar accent to their German that made it slightly difficult to understand.

There was nothing epoch-making in the papers presented; much was good, even of high order, but again there was much of the commonplace, not to say inferior. The papers presented in English were comparatively few and not of such a high average as one might wish. The absence of really great American names was indeed disturbing. Some of them ventured discussions, but the weight of language was so overwhelmingly Teutonic that English speakers seemed to make little impression.

Among the Americans I saw were J. H. Musser, George Dock, Harvey Cushing, J. B. Murphy, A. D. Bevan, R. Matas, R. W. Lovett, A. MacPhedran, E. W. Andrews, C. W. Richardson. Of Detroit, Dr. W. A. Spitzley was with me, and I met Dr. W. A. Potter and Dr. J. D. Matthews.

One conspicuous feature of our own national meetings has been wanting here—namely, the scientific exhibits and the commercial exhibits. Nothing of the kind is seen here, except an occasional specimen, instrument or photograph demonstrated at the reading of a paper.

The longest programs and the largest attendance were at the sections on Internal Medicine and on Surgery. At first a casual visit to these sections was unsatisfactory, because the speaker's name was not written on the board and the chairman did not announce so that the audience could hear, but continued protests finally brought about an improved system. By far the largest

crowds were found at the combined section meetings on Immunity, Aug. 31 and Sept. 1 and on Appendicitis, Sept. 2 and 3. The latter symposium brought out a discussion of points which American surgeons have practically ceased to discuss for several years. Broadly speaking, European surgery is inferior to ours in technique; their eternal work is in pathology and diagnosis. We saw this illustrated, not only at the Congress, but in actual work at clinics.

Perhaps the most interesting part of the whole week to a novice has been the various social functions and entertainments arranged by the Hungarian physicians, city and state authorities, and private institutions.

The first event was a preliminary soiree on Saturday evening, the 28th, in the Gallery of Fine Arts. The inauguration ceremony took place in the Municipal Redoubt on Sunday at 11 a. m., in a vast and gorgeous hall, whose wonderful chandeliers, with over 1500 electric lights, lent splendor to the pomp of the occasion, for a scion of royalty, the Archduke Joseph, governor of Hungary, opened the meeting, and all delegates, both official and general, appeared in the full dress of their respective countries, while Hungarian soldiery, brightly uniformed, were everywhere in evidence. At this meeting the mayor of Budapest also extended a welcome, and the president of the Congress then called upon the authorized delegate of each country. The audience at this ceremony was constantly changing, lending a kaleidoscopic appearance, but also preventing the speakers from being well heard. Yet the occasion was dignified and very impressive to a citizen of democratic training. Very thrilling was the national hymn sung by a large chorus of native male voices.

On Monday afternoon many Americans attended a gracious function around the statue of Washington in the City Park, which was erected by Hungarians in the United States as an ideal of liberty and citizenship. Brief addresses were made, then American and Hungarian national airs were sung by a body of children who had been born in the States.

Monday evening the city gave a soiree, in the Municipal Building, and this again was on a grand scale; the beautiful costumes of the ladies mingling with the brilliant continental uniforms of dignitaries and officers produced a dazzling effect. A fine musical program was given, and refreshments, with a plentiful supply of champagne, which flows freely in this country.

Wednesday evening a reception was given at the Royal Castle by Archduke Joseph; the same splendor was repeated, with the added sanctity of imperial surroundings, and an opportunity to look down by moonlight over majestic terraces upon the Danube and across upon the glittering expanse of Pest.

Thursday evening the presidents of sections gave individual dinners to delegates and essayists. Besides these official functions there were visits arranged to various points of interest, such as the Apenta Spring, the waterworks, champagne factories, St. Margaret's Island and Baths, theater performances, museums, parks, and government buildings. In many of these entertainments the ladies were included, and in addition there were drives, excursions, and functions expressly for the ladies.

The weather during all the week was good, except for one rainy morning, when the heat of the preceding three days gave way to a delightful coolness that prevailed the rest of the time. The last two days saw a rapid exodus of visitors, many of whom expressed the opinion that a week was too much time to devote to the Congress.

Whatever may be the individual opinions as to merits of the meetings, one fact is undisputed—namely, that the International Medical Congress is a great factor for increasing the mutual respect of the nations, and for uniting the medical profession of the world in the bonds of common knowledge and brotherhood. Attendance at such a convention is inspiring and stimulating. The next one in London, three years hence, ought to be the occasion for the English-speaking people to make a mighty impress upon the mould of medical progress. I hope Michigan will send not only visitors but delegates and essayists.

Yours truly,
CARL S. OAKMAN.

Grand Rapids, Mich., September 10, 1909.
To the Editor:

I desire to make a rejoinder to the "Notes on Recent Legislation" published in the July, 1909, JOURNAL, on pages 339 and 340; in so far as it regards the Nurses' Registration Act.

Before taking up the question I would say that I am a layman and not connected with either the nursing or medical profession. During the very

serious illness of my daughter in 1904 I first learned to know the value of a trained nurse, and although I had the best medical attendance, my daughter's life at that time could not have been saved without the nurse. It was a case of teamwork that neither doctor nor nurse could have accomplished alone. During 1904-5 a trained nurse was always a member of my household, and at the same time my family physician became my social companion and close friend. I have, therefore, the highest respect, not only for the profession of nursing, its nobleness and necessity, but also for the medical profession.

Through these associations I learned much of the nursing profession and the organization, working and aims of the hospitals. In 1907 and again in 1909 I gave my best endeavors to secure legal recognition for the nurse who has spent her time, her strength and her best efforts to qualify for the practice of her profession. Whatever I have done has been entirely without fee or reward of any kind.

I never have nor do I now see why the medical profession, or any part of it, should oppose the trained nurses in the passage of the Nurses' Act, the sole aim of which has been to elevate and improve the profession of nursing and make it more valuable and efficient to the medical man and through him to the general public. It does no injustice to the so-called practical nurse and does not prevent her from following her calling. The new law does not intrude on the physician's practice, his prerogatives or his profession. It simply provides a method by which the public and the doctor can determine who is a trained nurse and what that appellation means, viz: two years' training in a recognized and reputable training school.

The opposition to the nurses claimed that hospitals were organized and conducted by physicians and that physicians trained the nurses; that there were scores of hospitals in Michigan having a 50-bed capacity, where the doctor was supreme in the training school. The nurses proved conclusively that there were not scores of hospitals in Michigan having a 50-bed capacity; that hospitals like Harper of Detroit, U. B. A. and Butterworth of Grand Rapids and most of the principal hospitals in other parts of the State are not organized or conducted by physicians, but by governing boards of citizens, not doctors; that the nurses' training schools in these hospitals are officered and administered by nurses; that the curriculum of their training schools is deter-

mined by nurses, and that the text books used in the training schools are written by nurses; not only that, but the superintendent, supervisor and dietician of the training schools are nurses; that the lectures which the doctors give to the nurses comprise less than five per cent of the nurses' training; that the art of nursing and over ninety-five per cent of the training is taught by nurses. There are, of course, exceptions to these conditions, but I believe that the large majority of the hospitals and training schools in Michigan fit the specifications I have noted above.

The article in the July JOURNAL intimates that unfair methods were practiced in passing the bill through the Legislature, and that its final passage was accomplished through repeated efforts of the Governor. I deny all of this and can speak with assurance because I was in close touch with the nurses' campaign every day. No lobbying was done on the floor of either house; no committee hearings were attended in either Senate or House that were not announced and determined upon by the proper chairmen a week in advance, and the character and attendance of the meetings in both cases were determined by the proper legislators. So far as I know the Governor made absolutely no efforts in behalf of the Nurses' Bill, and I have heard of no utterance from him until after the bill was passed by both House and Senate. He then said he would be very glad to sign the act and make it law, and in saying so congratulated the nurses on their deserved recognition.

The published statement of the late Representative Colby is very weak. He certifies that he was present during the reading of the bill and desired to make some changes in the interest of the people, but was dissuaded from doing so by the chairman of the Committee on Public Health. It seems odd that such a deathbed statement should be brought forward at this time, when we all remember that Sheridan J. Colby was a fearless, brave and competent legislator at the time the Nurses' Bill was under consideration by the House.

In nearly every other State of the Union where there is a registration of nurses, the nurses control their own board, and it seems to me that they are as competent to manage their own affairs as the pharmacist, who controls his own board of registration. Like the pharmacist, the nurses must follow exactly and implicitly the doctors' orders and wishes, and this is a very important part of her training in all reputable

training schools. She is impressed over and over from day to day that her success and usefulness depend upon her loyalty and obedience to the physician she serves under.

I wish to say a word regarding the two years' course of training, which was cut down from three years. A large number of the nurses desired to have the minimum course three years, but it was remembered that a majority of the training schools in Michigan, including some of the State institutions, had only a two years', or at the most a two and one-half years' course; the friends of the proposed act realized that it would be better to build up than to start by shutting out a majority of the Michigan training schools.

No additional State expense is involved in this forward step in nursing. The new act does not appropriate any money from the public treasury, and experience in nearly twenty other States shows that similar laws have increased the wages of the nurse.

It seems to me that the medical people should be the first to welcome the advent of the new law, help the nurses get whatever further legislation they may desire and use their utmost influence for public and professional recognition of the registered nurse. I am urging that the medical profession of Michigan recognize that the trained nurses of the State are just as loyal to the doctor and his profession as ever before and they hope to make themselves more helpful through the new act. The new law will undoubtedly elevate their work, strengthen and improve their schools, benefit the public and, finally and most surely, make safer, better and more efficacious the visits of the physician and surgeon to the sickroom and hospitals.

C. F. SCHNEIDER.

To the Editor:

A meeting of physicians interested in Scientific Clinical Research is called for Wednesday, October 27, 1909, at John Ware Hall, Boston Medical Library, No. 8 Fenway, Boston, Massachusetts. The meeting will come to order at 10 a. m. and carry its sessions through Wednesday, and, if necessary, through Thursday and Friday.

The object of the meeting is:

First, to establish an American Association of Clinical Research;

Secondly, to establish clinical research on an

incontrovertible scientific basis in hospitals; and

Thirdly, to institute an American Journal of Clinical Research, in which the work of members of the American Association and of others doing clinical research work in a scientific manner shall be published.

You and your friends are herewith cordially invited to participate in this meeting and in the proposed movement of scientific clinical research.

This invitation is extended to all physicians and surgeons whose interest goes beyond the immediate case work of ordinary clinical societies; and it is hoped that the invitation will be accepted by all medical practitioners, irrespective of their present medical affiliations, who can appreciate the necessity for establishing on an incontrovertible scientific basis the certainties and limitations of the present practice of medicine and surgery before attempting to add to the already large and cumbersome field of medicine.

The American Association of Clinical Research is not intended to disturb the present medical affiliations of its members nor to interfere in the very least with the duties they owe and the privileges they enjoy by virtue of their affiliation with any existing national medical body.

The American Association of Clinical Research is to take cognizance of the fact that the clinic requires cold facts and conclusive methods, and upon these fundamental requirements, the structure and work of the American Association of Clinical Research are to be built.

It is of the utmost scientific importance to establish conclusively all that is at present true in medicine and surgery, and only upon such proved knowledge, to base any further advancement. The clinic deals with clinical entities and not, like the laboratories, with parts as entities. Therefore, clinical research differs, and must differ, from experimental laboratory researches. Clinical research must consider clinical entities, and when considering parts, it must consider them only as parts and not as wholes. All that subserves the object of obtaining and investigating clinical facts and principles belongs to clinical research and the laboratory is a part of the means of clinical research, but only a part.

The crux of the matter appears to be that experimental laboratory proof is not sufficient clinical proof. In order to advance in an irresistible line, clinical research must be based on a conclusive form or method of clinical proof. In experimental proof, we dislocate a part from a whole and attempt to prove the whole from the

part, as though a dislocated part could always prove the whole. Or, we attempt to prove facts in one species by facts in another species, as though the two species were identical. For instance, the experiments made on animals to elucidate certain elements of fever bring out a fact of almost insurmountable difference between man and the lower animals, the fact that man has associated with the nakedness of his body a highly perfected power for regulating his temperature, a highly developed vasomotor system and a vast array of sweat glands, a characteristic complex of things which apparently no other species of animal life presents. Experiments made on animals to prove febrile or other clinical phenomena in man, may be suggestive, but for obvious reasons cannot be conclusive. To prove observations in man, the observations must be made on man and not on animals. But observations on man even are not necessarily conclusive. Individual observations on man cannot be conclusive, because the same experience cannot be repeated, and when we prove by numbers, we compare similar but not identical experiences. Analogy is not conclusive proof. Identity alone is conclusive proof; but since, in medicine, identical experiences cannot be repeated, we must provide simultaneous identical experiences in order to have proof by identity. Clinical proof is conclusively established when all observations and experiments are made conjointly by at least two competent men, preferably of opposite ideas, at the same time. Conjoined critical observation and experiment, at the bedside and in the laboratory, as may be required, furnish simultaneous identical experiences, the proof preceding on the principle that a whole can be proved only by the whole and not by dislocated parts.

These and other weighty questions await your assistance for a necessary solution. The benefit that will accrue, both to medicine in particular and to the medical profession and humanity at large in general, from a satisfactory establishment of scientific clinical research, can be easily surmised. Come prepared, yourself and your friends, to give to this matter your mature convictions and your personal assistance. Only from a critical interchange of critically acquired opinions, can we hope for clearness and for the clarification of the medical atmosphere now charged with confusion and indifference.

Your communication, indicating your interest and your expectation of being present at the meeting in Boston on October 27, next, is eagerly awaited, and on receipt of the expression of your interest, further developments will be communicated to you personally in due time.

Please address your communication at the earliest possible date directly to James Krauss, M. D., 419 Boylston Street, Boston, Massachusetts.

Yours fraternally,

.. (Signed) JAMES KRAUSS, M. D.,
Chairman Committee American Association Clinical Research.

419 Boylston Street, Boston.

Progress of Medical Science

PHARMACOLOGY AND THERAPEUTICS.

Conducted by

H. A. FREUND, M. D.

A Report of Eleven Cases of Staphylococcus Infection Treated with Leucocyte Extract.—In continuing their work upon the therapeutic value of leucocyte extracts, HANSON and ZINSON have had occasion to make observations upon the curative influence of these extracts upon cases of staphylococcus infections in man. In all cases the leucocytes were extracted in distilled water as in the previous work, and were administered to the patients by subcutaneous injections. The animals used for obtaining the leucocytes were rabbits.

Eleven cases of staphylococcus infection have been systematically treated and observed. In all but three of these the processes consisted of furunculosis of a chronic nature and had lasted, in spite of the most desirable hygienic conditions, for periods ranging from several months to four or five years. In none of the cases did the leucocyte extract fail to exert a markedly beneficial action, not only noticeable to the experimenters, but conceded by the attending physicians and by the patients themselves. In all but one of the more chronic cases, there was apparently complete cure, the patients themselves coming back for treatment if, after weeks of freedom, a suspicious acne pustule attracted their attention. The few acute cases which have come under observation have been even more striking in the immediately apparent local and general improvement following the injections. This is most patently illustrated in Case 10 of the series described.

In addition to these 11 cases, two cases of chronic acne were treated. Both of these were examples of the most severe type of indurated acne, and had stubbornly resisted months of treatment. The time given to these cases has been too short to warrant final judgment, there is no doubt that the lesions in both cases after four or five injections of extracts have taken on a less indurated and more acute character—a fact which argues in favor of a higher local resistance. Another

case of frontal sinus infection with staphylococcus pyogenes aureus has been favorably influenced by the leucocyte extract; but final judgment upon this case must be reserved until a longer period of observation has elapsed.

On the whole, the writers have no hesitation in concluding that marked improvement in, and often cure of, localized staphylococcus infection may be obtained by careful and systematic treatment with leucocyte extract.—*Journal of Medical Research*, April, 1909.

The Etiology and Treatment of Intestinal

Hemorrhage.—NILES of Atlanta says that hemorrhage from the intestine may be classed as inaccessible except when from the rectum or colon. It may be caused by many local and general conditions. Some general principles may be laid down as to treatment of severe hemorrhages above the rectum. Physical and psychic quiet must be maintained and anything tending to increase peristalsis must be avoided; the blood-pressure must not be raised, or decomposition of intestinal contents caused. No food should be given for forty-eight hours by mouth or rectum, and only cracked ice sparingly; then only liquid foods for another week. Opium should be given only in sufficient quantity to allay pain and nervousness, not enough to lock up the intestines. Ergot is of little use and ice applications to the abdomen do more harm than good. Bleeding from the rectum may be controlled by injections of the ice water and styptics. A suppository of suprarenal extract, iodoform, and ichthyol is very useful. When hemorrhage comes from the colon or upper rectum remedies must be given by mouth in order to reach the situation of bleeding, bismuth subgallate and astringents being useful. In acute bleeding adrenalin, gelatin, and calcium chloride are useful.—*Medical Record*, July 31, 1909.

PEDIATRICS.

Conducted by

R. S. ROWLAND, M. D.

The Diagnosis of Permanent Mental Deficiency in Infancy and Childhood.—LAPAGE says the medical man and nowadays especially the school medical officer, has frequently to decide whether an infant or a child has possession of its full mental powers, and in many cases it is by no means easy to give a definite opinion.

Briefly, he defines mental deficiency as meaning a permanent want of sense. There are three degrees: (a) Idiocy, or very great mental deficiency; (b) Imbecility, or considerable and marked mental deficiency; (c) Feeble-mindedness, or lesser, but nevertheless definite and permanent mental deficiency.

The well defined types most frequently met are: (1) Microcephalic, (2) Mongolian, (3) Cretinoid, (4) Epileptic, (5) Hydrocephalic, (6) Cerebral Diplegic.

Besides, there are many cases which do not conform to any well defined type, though there is no doubt about their mental deficiency. Such cases form a large proportion of the mental defectives seen at a large children's hospital and at schools for such children.

LAPAGE says the following points should be noted when examining a child for mental deficiency: (1) The family history, (2) the health of the mother during pregnancy, (3) the personal history of the child, including troubles at birth, (4) the presence or absence of physical stigmata, (5) the height and width, (6) the speech, (7) the sight, (8) the hearing, (9) the ability to sit up, to walk and to control the sphincters, and the age at which these powers developed, (10) the age at which the child began to walk, (11) the memory, attention, will, and temperament, (12) the standard in which the child is, the power of reading, writing, ciphering, and of performing manual tasks.

In conclusion the writer says that the diagnosis of the slighter forms of mental deficiency, i. e., of less degree than imbecility, or idiocy, is not as a rule made during the earlier years of life, unless the child conforms to one or the other of the well recognized types. Inability to sit up, lateness in learning to walk and talk may excite the alarm of the parents. As the child gets older, the diagnosis becomes increasingly easy. Still, up to the age of 5, 6 and 7 years, there are quite a number of cases in which the diagnosis is difficult. The points that help are

the development of the power of walking and of talking, the amount of control over the sphincter, and the general mental capacity, as judged from the actions, the speech and language, the expression, the power of memory, attention, imitation, and will, the presence of perverted instincts and habits, such as unusual wantonness and violence, or an insatiable appetite, as the eating of clay or dirt.—*The Practitioner*, August, 1909, page 211.

Treatment of Diphtheria with Special Reference to the Prevention of Heart Failure.—PORTER states that it is important to recognize that some impairment of the heart muscle occurs in almost every case of diphtheria, and it is imperative that, having recognized this fact, we should realize that in prophylaxis lies our most potent therapeutic aid, and that prophylaxis may be summed up in two words—antitoxin and rest.

The essentials of treatment for the heart condition accompanying diphtheria are:

- (1) Prompt and sufficient dosage of antitoxin.
- (2) Rest in bed, not less than three weeks.
- (3) Attention to the condition of the abdominal viscera.
- (4) A nutritious, easily digested diet.
- (5) Certain drugs, each according to the indications. For a slow heart, atropin; for a racing heart, camphor, and ice to the pericardium; for vascular failure, ergot.
- (6) If the heart failure is incidental to an overwhelming toxemia with lethargy, hypodermoclysis.

Finally the factors determining the number of units of antitoxin to be given are:

- (1) The intensity of the toxemia.
- (2) The extent of the involvement.
- (3) The time elapsed since the first manifestations of the disease.
- (4) Whether or not there is stenosis of the air ways.

PORTER says he has never had reason to regret giving massive doses of antitoxin and has given so large an initial dose as 28,000 units, but he had learned through a series of early experiences that the cases which developed circulatory incompetence or muscular paresis almost invariably fell into the class that had been given small repeated doses over a number of days after the symptoms appeared.—*Archives of Pediatrics*, August, 1909, page 584.

NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

A Case of Apraxia with Autopsy.—The case is briefly thus summarized: "A man of 55, at the time of admission, was blind; was totally unable to designate the position of the limbs; could not locate touch anywhere; could not recognize objects by the sense of touch, and his touch and temperature senses were imperfect in the left hand. The left hand, although capable of some reflex acts, could not be moved voluntarily. The right hand was apraxic, and apraxic phenomena were present in chewing and walking."

"The autopsy revealed the presence of degeneration of the white matter of the right occipital and right parietal regions on the convexity, and the posterior portion of the temporal lobe, the calcarine region remaining intact." There was also degeneration of the longitudinal fasciculus and the optic radiation on the right side of the posterior portion of the corpus callosum and of the left occipital and temporal regions. Elsewhere the brain was apparently normal.

Liepmann understands apraxia as apart from agnosia (the inability to recognize objects), the apraxic being unable to perform purposeful movements of the affected limbs, but the element of inattention and lack of concentration suggest the presence of other elements in the clinical picture. The subject is not a simple one, but, on the contrary, a difficult and complicated one. The movements in this case, due to apraxia, the author believes to be:

1. The curious disturbance of gait, short, rhythmical steps, usually to one side, probably not due to his blindness.
2. The false movements. In endeavoring to put a banana into his mouth, he would first place it upon his chin, a movement not atactic in character.
3. If a pen were placed in his hand and he were asked to write, only halting movements resulted.
4. When a watch was placed in his hand, and he was requested to place it to his ear, he usually carried it to his mouth, believing that he was holding it to his ear.
5. Asked to touch his ear with his right hand, he groped in the air or grabbed his coat or his knee, believing that he was touching his ear.
6. Apraxic movement of the muscles of mastication. (The intricate paths possibly involved are variously diagrammed by the author and the matter exhaustively studied.)—RHEIN in *Journal of Nervous and Mental Diseases*, October, 1908.

A Case of Spasmodic Syringomyelia.—A

man of 50, who had been a farmer, a law clerk, a laborer, and a time keeper, early in 1907, observed that objects would fall from his left hand in an unaccountable way. At first there was no numbness, but a curious incapacity to estimate the pressure necessary to hold an object in the hand. Later, slight numbness appeared, later still, rigidity of arm and forearm. The patient supported the left forearm with the right arm, because, as he said, "the left arm felt heavy and the shoulder dragged." The ring and middle fingers were flexed into the hand, the two distal phalanges extended. The index finger was extended, and the wrist was generally carried in a position of slight hyper-extension. Impaired movement was due, not to any joint lesion, but to muscular resistance. There was slight spinal curvature.

The deep reflexes of the upper extremity were either absent or much diminished, while those of the lower extremity were much exaggerated; there was no true reaction of degeneration, but both galvanic and faradic reactions were lessened. There were marked changes in sensation, areas of diminished perception, of complete anesthesia, of complete analgesia, and areas of complete absence of perception of heat or cold. The skin of the fingers was glossy and slightly livid. The mental condition was that of an intelligent working man.

Diagnosis is difficult. The spasm of the upper limbs is so firm that they can scarcely be moved. This, coupled with the other symptoms led to the diagnosis of the spasmodic form of syringomyelia, described by Pierre Maree in 1900—BRUCE in July, 1909, number of *Review of Neurology and Psychiatry*.

Acute Anterior Poliomyelitis.—In the *Therapeutic Gazette* for September 15th, 1909, Dr. R. Barnett of Lewiston, Pa., speaks of an epidemic of this disease which occurred in Lewiston, in the summer of 1908, in which about 30 cases, with three deaths, were reported. Two of the doctor's children were of those afflicted and of these the one most seriously ill made the better (practically complete) recovery, due in large measure, as he thinks, to thorough colonic irrigation and the use of Murphy's drop-by-drop proctolysis.

Strychnin and corrosive sublimate are later of service and stricken muscles should be guarded from degeneration by proper use of electricity and massage.

Dermatology.

Conducted by

A. P. BIDDLE, M. D.

Animal Parasitic Skin-Diseases Communicable to Man.—According to Leuckart more than fifty distinct species of animal parasites infest the body of man. These are found scattered throughout the various organs and systems, the skin, intestines, connective tissue between muscles, brain, eye. No organ is entirely free. The embryo within the body of the mother may be infected. At least three-fourths of the total number of parasites are found in the skin and alimentary canal.

The Sarcoptes. Veterinary pathologists distinguish three species of *acari* parasitic on domestic animals: (1) The *Sarcoptes*, the female of which burrows in the skin in the same way as the *Sarcoptes hominis*; (2) the *Dermatokoptes*, a species of non-burrowing acarus known in France and England as the *Psorontes*; and (3) the *Dermatophagus* or *Symbiotes*, also non-burrowing acari. All the sarcoptes of domesticated animals, according to Friedberger and Fröhner and others, are transmissible to man. The dermatokoptes and dermatophagus quickly perish on the human skin and produce at most only slight symptoms of irritation. The sarcoptes of the several species of animals appear for the most part to be transmissible from one species to another, but of special interest is the fact that the sarcoptes of man may be transmitted to the horse.

Scabies is a much more serious disease in domesticated animals than in man, and if not treated produces loss of nutrition and may even end fatally as in sheep. The thickness of the hair influences not only the symptoms, but prognosis and prospects of cure; hence the seriousness of scabies in sheep. The range of hosts of the sarcoptes is very considerable, and includes the horse, sheep, dogs, cattle, goats, cats and hens. It has also been observed in the lion, leopard, llama, camel and serpent. Pernet has demonstrated one of the non-burrowing acari in the parrot, in which it produced molluscum-like tumors. Besnier has recorded a case of scabies in a man contracted from the horse, in which the disease involved, not the whole body of the man, but the face and scalp. The body was covered with rash in which the sarcoptes were found in large numbers. The mite was one-fourth greater than the human species. The acarus of the

sheep is only rarely transmitted to man. A case, however, is reported by Delaford and Bourruignon which did not get well spontaneously after forty-nine days, and eventually the man had to be treated. The sarcoptes of the pig has been observed in man; an eruption manifested itself the same day in which contact with the animal took place. The acarus of the dog, according to Delaford, may be transmitted to man, but produces only a slight eruption. The acarus of the hen, it is stated, is also transmissible to man.

The sarcoptes of animals, with the exception of *Sarcoptes notoedres* of the cat and *Sarcoptes mutans* of birds, are distinguished from the human mite only by minute differences as to size. Megnin considers them as varieties, and not distinct species.

Sarcoptic scabies of the horse usually begins on the head and neck, but it may start, according to the mode of infection, on almost any part of the body. Only very rarely does it spread all over the body, for it is usually limited to the neck, head and shoulders. The itching is extraordinarily severe, more especially at night, leading the horse to rub and gnaw the parts. Circumscribed bald patches appear early in the course of the disease, accompanied by formation of papules and vesicles.

The scratched part becomes scaly or covered with scabs. In long standing cases the skin becomes indurated and fissured, and if the animal be neglected the disease may spread all over the body, the general nutrition becomes affected, and the animal may die of exhaustion. In the milder cases the animal may recover, but in the severer ones, and especially when the disease has been neglected or badly treated, the prognosis is unfavorable.—LESLIE ROBERTS, M. D., *British Journal of Dermatology*, March, 1907.

Naevus Pigmentosus, Treated with Carbon Dioxide.—The patient was a girl of twelve years, who had a pigmented patch on the right ear and cheek, one and one-half by two inches in size. The patient was exhibited to demonstrate the excellent results obtained by this method of treatment. Four applications of the snow had been made, each lasting about one-half minute. Presented by DR. STOUT, before the *Philadelphia Dermatological Society*, March 16, 1909.

OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

Etiology of Acute Otitis.—NEUMANN and RUTTIN made use of 91 cases (97 ears) in order to determine first: whether the epi- or mesotympanic location of the suppuration has any influence upon the course of the disease and especially whether one of these locations leads to a suppurative mastoiditis with certainty or in the great majority of cases, or whether this suppurative mastoiditis is dependent upon other circumstances.

2. Whether an acute mastoiditis is created more by certain microbes than by others, or whether other circumstances are solely to be accused.

Of the cases examined 43 were operated upon. Seven of these were epitympanic suppurations, 36 mesotympanic, 54 healed spontaneously. Of these 11 were epitympanic suppurations and 43 mesotympanic. Considering that altogether 19 epitympanic and 78 mesotympanic suppurations were investigated they conclude that the number of the epi- and meso-tympanic cases which were cured with operation and that were cured without operation is about equal, which shows that the localization of the suppuration does not influence the development of the empyema of the mastoid process.

Another series of cases was used in order to determine whether the kind of microbe influences the development of an acute suppurative mastoiditis. Only cases operated upon were used for this series. They found, 60 times streptococcus pyogenes aureus, 13 times diplococcus, three times strepto-diplococci, six times streptococcus mucosus, five times staphylococcus pyogenes aureus, three times bacillus pyocyanus, once bacterium coli.

Of the cases of the second series which were investigated, 54 healed spontaneously, three of them were middle ear suppurations caused by capsulated cocci, 51 caused by microbes without a capsule.

Of the 43 cases which came to an operation 14 were caused by capsulated cocci, 29 by microorganisms without a capsule. Of 18 cases of streptococcus mucosus 16 came to an operation and only two healed spontaneously. The difference of the anatomical structure of the mastoid process has more importance in regard to the development of acute mastoiditis than the difference between capsulated microbes or those without a capsule as Politzer has already said in the first edition of his textbook. In most cases in which they paid attention to this condition they

could observe the pneumatic form of the mastoid process or when there was a great destruction the conclusion could be drawn from the pneumatic cells which were left in the zygomatic process or at the tip near the sinus or at other places. The reason of the importance of a pneumatic mastoid process upon the development of an acute mastoiditis seems to be the following. Any acute otitis is an inflammatory disease of all pneumatic spaces of the temporal bone and produces an exudate in which microbes thrive well. In a sclerotic mastoid process we can scarcely think of an inflammation and development of microbes; in the diploëtic mastoid process the presence of numerous cell elements and the rich blood supply do not appear to be favorable to the development of microbes. Clinically it would be very important to know beforehand whether we have to deal with a pneumatic mastoid process. The various methods: Roentgen rays, percussion and auscultation, are not reliable. According to their clinical experiences the presence of a pneumatic mastoid process can be suspected if there is pain in the mastoid process or if there is tenderness on pressure during the first days of an acute otitis.

The otitis caused by the streptococcus mucosus furnishes a picture of its own. Naturally, also, this otitis can heal, but its tendency to heal definitely is so great and it seems that a disappearing mucosus otitis is responsible for a number of mastoid affections which were formerly regarded as primary. In this otitis the healing of the inflammation in the tympanic cavity takes place in the first or second week, but there remains a considerable disturbance of hearing mostly connected with continuous subjective noises and an appearance of the drummembrane which reminds one of a secretory catarrh. The drummembrane shows a moist reddish coloring. The details are still to be recognized, but the outlines are not very clear, the light-reflex is not distinct and the lustre is faint. There is no pain, only a slight, sometimes very little pronounced, sensitiveness to pressure on some part of the mastoid process. Paracentesis always frees a mucous or mucopurulent exudate. Of their cases two were extradural abscesses, one meningitis, one abscess of the brain, five descending abscesses. In all cases the destruction of the bone and the gravity of the disease were accompanied only by slight symptoms.—*Archiv fuer Ohrheilkunde*, April 15, 1909.